

**ONKYO**  
IMAGINATIVE SIGHT & SOUND

Audio/Video Products 2006



**A New Reality**  
Innovative Home Theater by Onkyo



## CONTENTS

HOME THEATER COMPONENTS	4-12
PURE HI-FI COMPONENTS	13-17
iPod ACCESSORY	17
HOME THEATER PACKAGES	18
SPEAKER SYSTEMS	19
SEPARATE COLLECTION	20-21
HOME STYLE COMPONENTS	22
GLOSSARY	23
FEATURES	24-25
SPECIFICATIONS	26-27





As home entertainment enters its next phase—the delivery of a high-definition video and audio experience from digital media and broadcasts to HDTV displays—we envisage the most accomplished components incorporating high-powered, precise design and engineering with the latest advances in digital technology. We see a full range of aural expression supporting the best video images. By that, we mean a quaking bass you actually feel, that doesn't rely solely on loudness; subtle nuances that define the moment and don't go unnoticed; and a musical quality that rivals the best performances and that isn't manipulated beyond recognition. We base our audio design around some key technologies and innovations that are described on the next page.

2006 marks Onkyo's 60th year in the audio and A/V industry. With a legacy of industry firsts, we're excited about introducing yet more A/V components that make home entertainment a more engaging, "real" experience. And as high-definition home theater becomes the norm, we look forward to merging the latest high-definition technologies with our own "Imaginative Sight and Sound" to bring you a whole new reality.

# Premium Digital Surround Receivers—Superior Options in Home Theater

## The Onkyo Mission Defined

At Onkyo, we feel we have a responsibility to deliver—a responsibility to deliver audio that cannot be simply rated in watts or by a number on the volume display. We think of sound more realistically—sound that spans the entire audio range, from the subtlest nuances to the most awe-inspiring thunderous booms. By bundling our proprietary technologies and innovations with other sound-enhancing exclusives, we have created our own “sound harmony”—a sound that we’re confident you’ll feel is the best you’ve heard, felt and experienced.

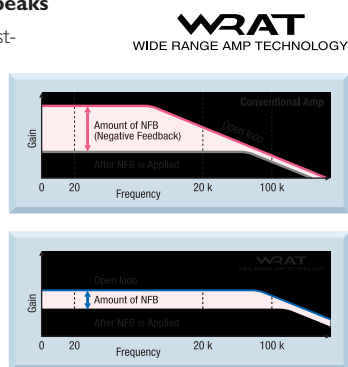
## Incorporating Our Own Proprietary Technology

We’re not interested in second best, which is why we have developed exclusive technologies such as Wide Range Amplifier Technology (WRAT), Vector Linear Shaping Circuitry (VLSC) and a massive High Current Power Supply (H.C.P.S.) transformer for our most expensive high-end receivers and for the audio requirements of digital formats and technologies. Today, you can find these features throughout our line-up.

## 3 Significant Benefits You Get From WRAT

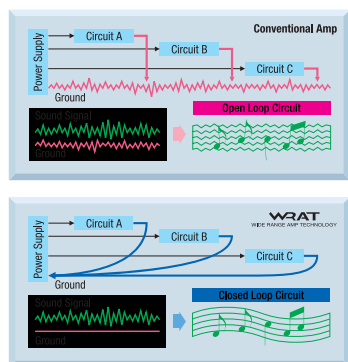
### Benefit 1: Uncommonly Low Negative-Feedback Design—Get cleaner sounds on program peaks

NFB (negative feedback) is the most cost-effective way to reduce noise at lower frequencies, but it will severely inhibit an amplifier’s ability to respond to large signal gains (e.g. explosions and musical finales) and to produce sound at high frequencies. We use a low negative-feedback design with audiophile-grade, close-tolerance components at critical points in the signal path to achieve a frequency response out to 100 kHz for high-resolution formats such as DVD-Audio and Super Audio CD, as well as for regular CDs and DVDs.



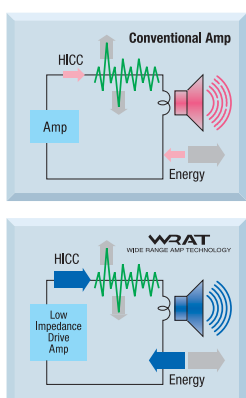
### Benefit 2: Closed Ground-Loop Circuits—Enjoy greater maximum volume without distortion

If an amplifier’s ground potential (voltage) fluctuates during playback, you can expect noise. In an open-loop circuit design, where all circuits are connected to the power supply via one loop (like on many amplifiers), the noise multiplies exponentially. Onkyo’s sophisticated closed-circuit design enables each circuit to go and return directly to the power supply, which cancels any individual circuit noise and keeps the ground potential free of distortion.



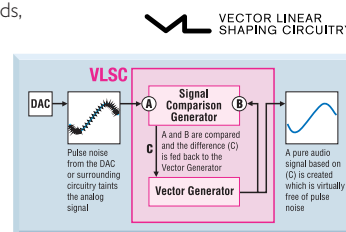
### Benefit 3: High Instantaneous-Current Capability—Experience film soundtracks with greater impact

After an amplifier outputs audio signals, speakers accumulate energy, reflex and send energy back to the amplifier. The amplifier must immediately cancel the speakers’ reflex energy and instantaneously send out the next signal. The same high current is also necessary to handle speaker impedance fluctuations, which can force an amplifier to provide four to six times its usual current load. The instantaneous current capability of even Onkyo’s least expensive WRAT receivers exceeds that of most conventional units because they commonly have less than half the current capability. An Onkyo receiver will deliver movie soundtracks with dynamics and clarity like you experience in the theater.



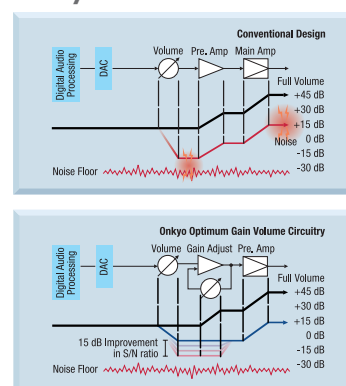
## Vector Linear Shaping Circuitry (VLSC™)

In conventional digital-to-analog methods, it is impossible to completely remove noise, which taints the analog signal and ultimately degrades the sound emitted from your speakers. With Onkyo’s VLSC, data is continuously sampled between two discrete points (via a signal comparison generator), and the difference is joined with analog vectors in real-time to produce a smooth output wave form. The VLSC digital-to-analog conversion method results in a smooth, virtually pulse-noise-free audio signal that faithfully reproduces the acoustic detail and subtle nuances of all your audio sources.



## Optimum Gain Volume Circuitry

In conventional volume-attenuation methods, the signal comes close to the noise floor at low volumes and is therefore susceptible to interference. Even if the amount of noise is minimal, it taints the signal as it is amplified. Onkyo’s Optimum Gain Volume Circuitry adjusts the gain so that less than half the typical amount of attenuation is necessary. The signal never comes close to the noise floor; thereby eliminating the possibility of the noise contamination that plagues conventional volume-attenuation designs.



## Auto Speaker Set-up with Microphone

Do you want each audio channel delivered synchronously, so you get the most accurate frequency response from the listening spot of your choice? Onkyo’s Auto Speaker Set-up with Microphone uses a high-sensitivity microphone to pick up test tones from your favorite listening spot, and then uses an acoustic analyzer to adjust the sound pressure level and time delay of each channel.



## Video Upconversion with TBC (Time Base Corrector)

During component video upconversion—where connectivity to compatible displays is conveniently simplified—each video signal incorporates a synchronization pulse (sync) that represents the beginning of each video signal. These syncs need to be highly precise in amplitude and timing to eliminate clock jitter, which can degrade the picture substantially, particularly on high resolution display devices. By incorporating a time-base corrector (TBC) in the conversion process, inconsistencies in the signal’s timing can be corrected, thereby ensuring the highest-quality picture possible.

## High Current Power Supply (H.C.P.S.) Transformer

Under the anti-resonant cover of any Onkyo receiver, you’ll instantly notice the High Current Power Supply (H.C.P.S.)

transformer. With a huge isolated power supply design that works in tandem with high-capacity filter capacitors, you’ll always have ready the large amounts of power necessary for reproducing the wide dynamics of movie soundtracks and the detail and clarity of your music.



## Exclusive RI (Remote Interactive) System Capability

With Onkyo’s RI system, you can integrate and operate all compatible components through a single remote control. What’s more, RI capability enables you to simply connect the iPod to your receiver through Onkyo’s RI Dock for the iPod (DS-A1). Your iPod effectively becomes another Onkyo component from which you can relish a fuller sound that just can’t be experienced through headphones. RI capability will also give you remote operability of your iPod for hands-off control over your digital music.







**WHAT HI-FI?**  
SOUND AND VISION  
★★★★★  
(April Issue 2005)



## TX-NR5000E **Integra** THX™ Ultra2™ Certified 7.1-Channel AV Home Network Receiver

As Onkyo's flagship home network receiver, the THX Ultra2 Certified TX-NR5000E is a pure expression of upgradeable functionality, forward-thinking technology and unrivalled build quality that will effortlessly drive the most demanding home theater. With easily replaceable modules and upgradeable software, the TX-NR5000E is prepared for virtually any future developments in the industry. It will handle hardware upgrades; advances in digital broadcasting and networking; and changes to surround sound formats, processing circuits or interface standards. But even by today's standards, this receiver is undeniably advanced—its standard functions include High-Definition Multimedia Interface (HDMI) and i.LINK ports to carry high-resolution, high-bandwidth digital video and audio signals. Also, an Ethernet port enables Onkyo's exclusive Net-Tune™ client processor to distribute digital music files on your PC or Internet radio to up to 11 clients on the same network. And with three-zone capability, 12-volt triggers, IR inputs/outputs and a bi-directional RS232 port, the TX-NR5000E is a shining example of the future of networked home entertainment.



The lesser-used controls are neatly tucked away behind the drop-down panel.

- 200 W/Ch, Continuous 6 Ω, 1 kHz, DIN
- THX™ Ultra2™ Certified
- THX™ Surround EX™, DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx, Dolby® Headphone, Dolby® Virtual Speaker
- VLSC (Vector Linear Shaping Circuitry)
- WRAT (Wide Range Amplifier Technology)
- Net-Tune™ Function with MP3/WMA/WAV Playback
- Ethernet Cable Plug-in Capability\*
- 2 High-Quality HDMI Inputs and 1 Output
- HDMI Video Upconversion with TBC (Time Base Corrector)
- Component Video Upconversion with TBC (Time Base Corrector)
- 2 i.LINK Digital Ports
- Speaker A and B Mode for 7.1 Channels
- BTL and Bi-Wiring Connectable for FL/FR with SBL/SBR
- Dual 32-Bit Processing DSP Chips
- 192 kHz/24-Bit DACs for All Channels
- 4 Wideband Component Video Inputs (3 RCA/I BNC) and 2 Outputs (RCA/BNC)
- Powered Zone 2 and Zone 3
- 5 12 V Trigger Outputs and 3 IR Inputs/Outputs
- Bi-Directional RS232 Port for Interface Control
- 2 Sets of Color-Coded Heavy-Duty Dual Banana Plug-Compatible Transparent Speaker Posts
- Color-Coded 7.1 Multichannel Inputs (Ready for Upcoming Dolby® Digital and DTS® Audio Formats for High-Definition Discs) and Pre Outs
- A/V Sync Control Function
- Elegant Aluminum-Faced RI (Remote Interactive) Remote Control with Scroll Wheel and LCD Display

\* For copyright protection purposes, it is not possible to make a digital output signal from Ethernet input signals.

### RF-EX6 RF Receiver for TX-NR5000E

- RF receiver for use with the Onkyo RF-capable remote control
- Allows your RF remote to control your devices by radio frequency
- Up to 16 units in one system • Integrated IR-blaster • 4 outputs for IR-emitters • Range up to 30 m • 4 selectable channels • Easy installation • For top mounting and stand alone



# Bringing Unprecedented Fidelity and Multiroom Playback to Your Music Files



## NC-500XE Audio Network Receiver

The NC-500XE is a network audio client that connects to your PC via a local area network (LAN). Set it up in any room in the house, and you can use it not only to play back music files saved on your PC, but also to access a wealth of Internet radio content. Now, when you want to enjoy your music files—including files ripped onto your hard drive in MP3, WMA or WAV formats—you are no longer constrained by the limited capabilities of your PC's speakers. With the NC-500XE, you can set up a network that serves to connect your PC and existing audio system. With Onkyo's proprietary Net-Tune™ Central software—available on the Net-Tune™ CD-ROM—your PC is transformed into a server, and you can listen to music files with the superior fidelity they deserve.

- 17 W/Ch, 6  $\Omega$ , 1 kHz, DIN
- VLSC (Vector Linear Shaping Circuitry)
- Net-Tune™ Function with MP3/WMA/WAV Playback
- Ethernet Cable Plug-in Capability\*
- Genre/Country/Language Selection for Internet Radio
- 20 Character, 4-Line Dot Matrix Display
- 2 Repeat Modes
- Line in/2 Outputs (Fixed/Variable)
- Optical Digital Output
- 40 AM/FM Presets
- 20 Internet Radio Presets
- Alarm and Sleep Timer
- Headphone Jack
- Aluminum Front Panel
- Full Function Remote Control

\* For copyright protection purposes, it is not possible to make a digital output signal from Ethernet input signals.

## Internet Radio

The proliferation of Internet radio has been rapid over the last few years, and the content still continues to grow. Perhaps you've heard of others getting radio reception from other countries or great stations you can't find on conventional radio. No longer are you limited to local access. Now you have the freedom of the kind of music you want to hear when you want to hear it. The drawback? Until now this has been limited to the audio playback capability of your computer and its speakers. We're sure you'll agree with us when we say your music deserves more.

## Net-Tune™—Bring a World of Music into Your Home

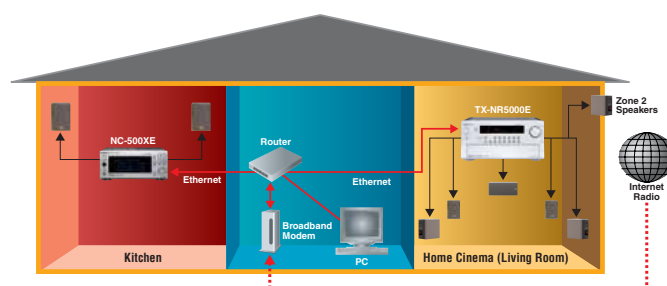
To enliven your MP3, WMA or WAV digital music files, you can connect your computer to one of our exclusive network-ready receivers via a broadband router. Simply download Net-Tune to your PC and, through the Net-Tune Central application, you're ready to liberate your music files. Also, you'll be able to revel in global radio programming from Internet radio. Simply hook up your network-ready receiver to a router connected to your broadband modem via a high-speed Ethernet cable. Press the Net Audio button on the front of your receiver, and kick back to the best Internet radio content on offer.



## Vector Linear Shaping Circuitry (VLSC™)

Conventional D/A conversion methods reduce digital pulse noise at the conversion stage but can't remove it completely. Previously only found on Onkyo's high-end components, VLSC (Vector Linear Shaping Circuitry)

employs a unique D/A conversion circuit to overcome this problem. Data is converted between sampling points and these points are joined with analog vectors in real-time to produce a smooth output wave form. The result—a virtually noiseless, smooth analog signal, based on the digital source, which brings out even the most subtle of nuances in your digital music files and Internet radio.



### Minimum Internet Connection Requirements:

- Broadband Internet Service
- DHCP (Dynamic Host Configuration Protocol) Based Network (Requires a DHCP-Enabled Router)
- 100 Base-TX Switch Built-in Broadband Router (Recommended)

### Minimum PC System Requirements:

600 MHz Intel Pentium III CPU or better; Windows® 98SE, Me, 2000, or XP OS (operating system); more than 20 MB of free hard disk space; RAM (128 MB for Windows® 98SE/Me/2000 and 256 MB for XP); and Ethernet port. Not compatible with Macintosh systems.





## TX-SR803E THX™ Select2™ Certified 7.1-Channel A/V Surround Home Theater Receiver

To create an A/V home theater receiver of exceptional quality, the challenge lies in incorporating the delicate processing circuits and amplifier components into the same chassis. When they both draw on the same power source, the amplifier dominates at peak moments. In a good design, it all works smoothly—as with the THX Select2 Certified TX-SR803E 7.1-channel A/V surround home theater receiver. You have the best connections available—HDMI and component video—for the effortless, high-bandwidth transfer of video and audio signals to the latest HDTV displays. And to get the best out of today's entertainment technologies, we've also included Vector Linear Shaping Circuitry (VLSC) on all channels to ensure you're getting the cleanest possible signal from digital sources. This receiver is built to last, but also built to serve. Powered Zone 2 with a 12V trigger enables you to activate stereo entertainment in another room of your choice, while you enjoy multichannel movies in your main room. You'll also find a series of other refinements that enable this receiver to demonstrate its class. Besides all the digital connections you'll ever need, you have a full range of onboard Dolby® Digital and DTS® surround sound decoders and interface control (including with the latest touchscreen control units) via the RS232 port on the rear. A powerful blend of superb engineering design and functionality, the TX-SR803E is in a league of its own.



The lesser-used controls are neatly tucked away behind the drop-down panel.

- 140 W/Ch, Continuous 6 Ω, 1 kHz, DIN
- THX™ Select2™ Certified
- THX™ Surround EX™, DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- VLSC (Vector Linear Shaping Circuitry) for All Channels
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- 2 High-Quality HDMI Inputs and 1 Output
- Component Video Upconversion with TBC (Time Base Corrector)
- WRAT (Wide Range Amplifier Technology)
- Advanced 32-Bit Processing DSP Chip
- 3 Wideband Component Video Inputs and 1 Output
- 7 Digital Inputs (5 Optical/2 Coaxial) and 1 Output (Optical)
- 5 S-Video Inputs and 3 Outputs
- RS232 Port for Interface Control
- Powered Zone 2 and 12V Trigger
- IR Input and Output
- Pure Audio Mode
- Optimum Gain Volume Circuitry
- Color-Coded 7.1 Multichannel Inputs (Ready for Upcoming Dolby® Digital and DTS® Audio Formats for High-Definition Discs) and Pre Outs
- Color-Coded Dual Banana Plug-Compatible Speaker Posts
- Independent Crossover Adjustment for F/C/S/B (40/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control Function
- Auto Speaker Set-up with Microphone
- Compatible with RI Dock for the iPod
- Backlit/Preprogrammed RI (Remote Interactive) Learning Remote with 3 Macros and Mode-Key LEDs



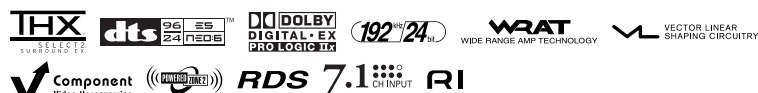


# TX-SR703E THX™ Select2™ Certified 7.1-Channel A/V Surround Home Theater Receiver

- 130 W/Ch, Continuous 6 Ω, 1 kHz, DIN
- THX™ Select2™ Certified
- THX™ Surround EX™, DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- VLSC (Vector Linear Shaping Circuitry) for All Channels
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- Component Video Upconversion with TBC (Time Base Corrector)
- WRAT (Wide Range Amplifier Technology)
- Advanced 32-Bit Processing DSP Chip
- 3 Wideband Component Video Inputs and 1 Output
- 7 Digital Inputs (5 Optical/2 Coaxial) and 1 Output (Optical)
- 5 S-Video Inputs and 3 Outputs
- RS232 Port for Interface Control
- Powered Zone 2 and 12V Trigger
- IR Input
- Pure Audio Mode
- A-Form Listening Mode Memory
- Optimum Gain Volume Circuitry
- Color-Coded 7.1 Multichannel Inputs (Ready for Upcoming Dolby® Digital and DTS® Audio Formats for High-Definition Discs) and Pre Outs
- Color-Coded Dual Banana Plug-Compatible Speaker Posts
- Independent Crossover Adjustment for F/C/S/SB (40/60/70/80/90/100/120/150/200 Hz)
- A/V Sync Control Function
- Auto Speaker Set-up with Microphone
- Compatible with RI Dock for the iPod
- Backlit/Preprogrammed RI (Remote Interactive) Learning Remote with 3 Macros and Mode-Key LEDs



The lesser-used controls are neatly tucked away behind the drop-down panel.



# TX-SR653E 7.1-Channel A/V Surround Home Theater Receiver

- 125 W/Ch, Continuous 6 Ω, 1 kHz, DIN
- DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- DAB (Digital Audio Broadcasting) Capability
- VLSC (Vector Linear Shaping Circuitry) for Front L/R Channels
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- HDTV-Capable (50 MHz) Component Video Switching
- Component Video Upconversion with TBC (Time Base Corrector)
- WRAT (Wide Range Amplifier Technology)
- Advanced 32-Bit Processing DSP Chip
- 3 Wideband Component Video Inputs and 1 Output
- 6 Digital Inputs (4 Optical/2 Coaxial) and 1 Output (Optical)
- 5 S-Video Inputs and 3 Outputs
- Subwoofer Pre Out
- CinemaFILTER™
- Powered Zone 2 and 12V Trigger
- Pure Audio Mode
- A-Form Listening Mode Memory
- Optimum Gain Volume Circuitry
- Color-Coded 5.1 Multichannel Inputs
- Color-Coded Dual Banana Plug-Compatible Speaker Posts (Except Zone 2 Speakers)
- Crossover Adjustment (60/80/100/120/150 Hz)
- Auto Speaker Set-up with Microphone
- Compatible with RI Dock for the iPod
- Preprogrammed RI (Remote Interactive) Compatible Learning Remote with 3 Macros and Mode-Key LEDs





# TX-SR674E 7.1-Channel A/V Surround Home Theater Receiver

- 125 W/Ch, Continuous 6  $\Omega$ , 1 kHz, DIN
- 150 W/Ch, 6  $\Omega$ , 1 kHz, 1 Channel Driven, IEC
- DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- VLSC (Vector Linear Shaping Circuitry) for All Channels
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- 2 High-Quality HDMI Inputs and 1 Output
- HDMI Video Upconversion with TBC (Time Base Corrector)
- Component Video Upconversion with TBC (Time Base Corrector)
- HDTV-Capable (50 MHz) Component Video Switching
- WRAT (Wide Range Amplifier Technology)
- Advanced 32-Bit Processing DSP Chip
- Audyssey 2EQ™ for Room Acoustics Correction
- 3 Wideband Component Video Inputs and 1 Output
- 6 Digital Inputs (4 Optical/2 Coaxial) and 1 Output (Optical)
- 5 S-Video Inputs and 3 Outputs
- Subwoofer Pre Out
- CinemaFILTER™
- Powered Zone 2 and 12V Trigger
- IR Input
- Pure Audio Mode
- A-Form Listening Mode Memory
- Optimum Gain Volume Circuitry
- Color-Coded 7.1 Multichannel Inputs (Ready for Upcoming Dolby® Digital and DTS® Audio Formats for High-Definition Discs)
- Color-Coded Dual Banana Plug-Compatible Speaker Posts
- Independent Crossover Adjustment for F/C/S/SB (40/50/60/80/100/120/150/200 Hz)
- A/V Sync Control Function (Up to 100 ms)
- Compatible with RI Dock for the iPod
- Preprogrammed RI (Remote Interactive) Remote Control



(Illustration)



## TX-SR604E 7.1-Channel A/V Surround Home Theater Receiver

Shares all features with TX-SR674E, with two exceptions: no HDMI video upconversion, and VLSC for front L/R channels only.



# HTE-604 7.1-Channel Home Theater Package

## DV-SP404E

DVD/CD/MP3 CD Player

- Plays DVDs, DVD+R/RWs, DVD-R/RWs, MP3 CDs, WMA CDs, CD-R/RWs, Video CDs, Audio CDs, and JPEG-Encoded CDs\*
- High quality HDMI output
- DivX® video playable
- PAL/NTSC progressive scan
- 96 kHz/24-bit audio DAC
- 108 MHz/12-bit video DAC
- Coaxial digital output
- 96 kHz or 48 kHz selectable digital output
- Component video, SCART & composite video outputs
- On-screen display (English/French/Spanish/German/Italian)
- Brushed hairline aluminum front panel
- Remote control

\* Discs that have not been properly finalized may only be partially playable or not playable at all.



## TX-SR604E

7.1-Channel A/V Surround Home Theater Receiver

(See above)



## TX-SR504E 7.1-Channel A/V Surround Home Theater Receiver

Want more than a superb balance of precise surround sound processing, powerful amplification and signal-enhancing technologies to bring out the very best in your home theater? How about the capability to switch between up to three high-definition A/V components (like DVRs, cable boxes, gaming consoles) for one output to HDTV? By covering all these bases, the TX-SR504E stands out as a competent home entertainment center. And if that's not enough, the TX-SR504E's simple set-up, ease-of-use and versatility tip the balance towards a completeness rarely found in affordable A/V receivers.

- 100 W/Ch, Continuous 6  $\Omega$ , 1 kHz, DIN
- 130 W/Ch, 6  $\Omega$ , 1 kHz, 1 Channel Driven, IEC
- DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- HDTV-Capable (50 MHz) Component Video Switching
- WRAT (Wide Range Amplifier Technology)
- Advanced 32-Bit Processing DSP Chip
- 3 Wideband Component Video Inputs and 1 Output
- 4 Digital Inputs (3 Optical/1 Coaxial)
- 3 S-Video Inputs and 1 Output
- Subwoofer Pre Out
- CinemaFILTER™
- Pure Audio Mode
- A-Form Listening Mode Memory
- Optimum Gain Volume Circuitry
- Color-Coded 7.1 Multichannel Inputs (Ready for Upcoming Dolby® Digital and DTS® Audio Formats for High-Definition Discs)
- Speaker A/B Drive
- Color-Coded Dual Banana Plug-Compatible Speaker Posts (Except Speaker B)
- Crossover Adjustment (40/50/60/80/100/120/150/200 Hz)
- A/V Sync Control Function (Up to 100 ms)
- Compatible with RI Dock for the iPod
- Preprogrammed RI (Remote Interactive) Remote Control



## TX-SR304E 5.1-Channel A/V Surround Home Theater Receiver

- 90 W/Ch, Continuous 6  $\Omega$ , 1 kHz, DIN
- 100 W/Ch, 6  $\Omega$ , 1 kHz, 1 Channel Driven, IEC
- DTS®, DTS® Neo:6 5.1, Dolby® Digital, Dolby® Pro Logic® II
- H.C.P.S. (High Current Power Supply) Massive High Power Transformer
- 192 kHz/24-Bit DACs for All Channels
- HDTV-Capable (50 MHz) Component Video Switching
- Advanced 32-bit Processing DSP Chip
- 3 Wideband Component Video Inputs and 1 Output
- 3 Digital Inputs (2 Optical/1 Coaxial)
- 4 Composite Video Inputs and 2 Outputs
- Subwoofer Pre Out
- CinemaFILTER™
- Direct Mode
- A-Form Listening Mode Memory
- Optimum Gain Volume Circuitry
- Double Bass Function
- Color-Coded 5.1 Multichannel Inputs
- Speaker A/B Drive
- Color-coded Speaker Terminals
- Crossover Adjustment (40/50/60/80/100/120/150/200 Hz)
- A/V Sync Control Function (Fixed at 0/20/40 ms)
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control

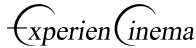




# Experience Cinema—The Perfectionist Approach to Home Entertainment

## ExperienCinema™

A home theater system is only as good as the signal it's fed. Our ExperienCinema design concept for players provides exceptional audio and video reproduction by incorporating only the best parts and technologies, alongside our own exclusives like Vector Linear Shaping Circuitry (VLSC) and Direct Digital Path. By focusing on build quality and stable signal support, Onkyo players bring to your entertainment system playback quality worthy of the highest cinematic standards.



## Vector Linear Shaping Circuitry (VLSC™) (DV-SP1000E)

Our proprietary VLSC significantly reduces pulse noise from digital signals. If you think of your player as the first link in your home entertainment chain, it makes sense to ensure that the signal is delivered in all its purity. That way, you'll add more depth and clarity to all your music sources (including digital music files) and movie soundtracks.



## Exclusive Dual Direct Digital Path (DV-SP1000E)

Unlike other DVD players that use inexpensive PC-board copper traces to transfer the digital audio signal, the DV-SP1000E employs dual high-purity, heavy-gauge, shielded cables to directly output digital or PCM bit-streams straight from the disc to the back panel. This way, the cable protects the audio signal against potential noise from nearby microprocessors and power supplies. So if you use the optical or coaxial digital output to send multichannel or stereo sources to your compatible receiver, you're starting off with the cleanest possible signal.



## HDMI™ (High-Definition Multimedia Interface) (DV-SP1000E, DV-SP404E)

The DV-SP1000E and DV-SP404E incorporate the latest interface technology with the inclusion of HDMI (High-Definition Multimedia Interface) to transfer uncompressed digital video (up to 5 Gbps) to the new generation of high-definition displays. Quite simply, there is no better alternative for a cost-effective, easy-to-use connectivity interface that enables the lossless transfer of digital video.



## i.LINK® (DV-SP1000E)

The DVD-Audio and Super Audio CD formats deliver both ultra-high-quality stereo and 5.1-multichannel audio. The DV-SP1000E's ultra-high-speed i.LINK—based on the IEEE1394 transport—transfers the signals from these formats at a rate of up to 400 Mbps, all in the digital domain. i.LINK is a welcome connectivity option for those who want to experience the sublime sound quality that has made these discs the formats of choice for audiophiles.



## Oplus® FlexScale™ Video Scaling Capability (DV-SP1000E)

Oplus Flexscale will take NTSC 480i or PAL 576i DVDs beyond normal progressive scan players and scale them to 720p and 1080i (via HDMI), thereby eliminating the need for external scalars. By upscaling to a 1080i signal—the most common HDTV format—you can deliver on the promise of 1080p high-definition displays (the most advanced HDTV available today). Naturally, a 720p signal will enable the best possible image on a 720p display.



## PAL/NTSC Veridic Progressive Scan (DV-SP1000E)

Most DVDs are “progressive”—meaning they produce video in complete frames. But to be compatible with all TVs, the DVD signal must be interlaced—a method where the picture is split into two fields and then blurred together to look like one. Progressive Scan, however, retrieves the original progressive signal, and on such compatible displays as HDTVs and high-end projectors, “paints” all the visible lines on the screen in a single pass—so you'll enjoy a scan-line-free image, with spectacularly clear color, no motion artifacts, and details so sharp they seem as if they're etched onto the screen.

VERIDIC PROGRESSIVE SCAN

## Multi-Format Playback Capability\*

Broadening your entertainment options beyond



DVD videos and PCM audio CDs, our players enable playback of a range of formats. With expanded content and audiophile quality, DVD-Audio offers stereo sound with data-loss-free 192 kHz/24-bit reproduction—far superior to a normal PCM CD. It also provides six discrete channels of 96 kHz/24-bit multichannel audio, for an engaging musical experience. Super Audio CD delivers a similar blend of stereo and surround music options. Based on a digital audio technology called Digital Stream Data (DSD), it employs a sampling rate 64 times faster than PCM CD. On a different level, MP3- and WMA-encoded music discs can be played back with a fuller sound, and with energy lacking on PCs and portable music devices. Also, you can easily transfer DivX®-encoded video files from your computer to your home theater. Likewise, your JPEG/Picture CDs look stunning when played back on your enlarged viewing screen.

\* Capability depends on specific model.

## Analog Devices 216 MHz/14-Bit NSV® Video DAC (DV-SP1000E)

A crucial factor in achieving clear, pristine digital video playback is the video digital-to-analog converter in your DVD player. The state-of-the-art Analog Devices 216 MHz/14-bit video DAC gives you the finest artifact-free picture available. Features such as 4x oversampling and Noise Shaped Video (NSV®) dramatically reduce noise interference to the video signal, so you can enjoy even the most subtle of nuances in your favorite movies.



## 192 kHz/24-Bit Audio DACs

Performing at a full 192 kHz/24-bit level of resolution, these state-of-the-art digital-to-analog converters deliver audio performance that is ideal for today's audio formats. They boast a higher dynamic range than standard D/A converters, and are virtually resistant to clock jitter—which means you'll enjoy the best performance possible.



## BNC Component Video Output (DV-SP1000E)

This three-jack video output gives you higher-quality single cable connection to the latest TVs, projectors and monitors than you get from standard RCA connections. It also brings out the full potential of your DVDs by sending three extremely clean, separate RGB (red, green, and blue) signals to your TV. This eliminates the usual artifacts such as dot crawl and moiré (wavelike or watered appearance), and gives stunning color fidelity with virtually no discernible video noise.



## Video Circuit On/Off Control (DV-SP1000E)

For the best audio quality possible, you can turn off the video circuitry when using the DV-SP1000E as an audio-only player, eliminating the possibility of interference between the player's video and audio circuitry.



# DV-SP1000E **Integra** THX™ Ultra™ Certified Universal DVD-Audio/Super Audio CD Player

- THX™ Ultra™ Certified
  - DTS® and Dolby® Digital Decoders Built in
  - Plays DVD-Audio and Video, DVD-R/RWs, Super Audio CDs, MP3 CDs, CD-R/RWs, Video CDs, Audio CDs, and JPEG-Encoded CDs\*
  - Oplus® FlexScale™ Video Scaling Capability
  - HDMI Video Upscaling via External Inputs (Composite and S-Video)
  - 216 MHz/14-Bit Analog Devices NSV® Video DAC
  - Wolfson® 192 kHz/24-Bit Audio DACs
  - Dual Direct Digital Path
  - VLSC (Vector Linear Shaping Circuitry)
  - Optical & Coaxial Digital Outputs
  - High-Quality HDMI Output
  - 2 i.LINK Digital Ports
  - 2 Component Video (RCA/BNC), S-Video & Composite Video Outputs/S-Video & Composite Video Inputs
  - SCART A/V Connector
  - 12V Trigger Input
  - IR Input and Output
  - Bi-Directional RS232 Port for Interface Control
  - Aluminum Front/Side Panels with Brass Stabilizers
  - PAL/NTSC Veridic Progressive Scan
  - Color-Coded 5.1 Multichannel Audio Outputs
  - On-Screen Display (English/French/Spanish/German/Italian)
  - Aluminum-Faced Backlit/Preprogrammed RI (Remote Interactive) Learning Remote Control
- \* Discs that have not been properly finalized may only be partially playable or not playable at all.



# DV-SP503E Universal DVD-Audio/Super Audio CD Player

- DTS® and Dolby® Digital Decoders Built in
  - Plays DVD-Audio and Video, DVD-R/RWs, Super Audio CDs, MP3 CDs, WMA CDs, CD-R/RWs, Video CDs, Audio CDs, and JPEG-Encoded CDs\*
  - DivX® Video Playable
  - PAL/NTSC Progressive Scan
  - 192 kHz/24-Bit Audio DAC
  - 108 MHz/12-Bit Video DAC
  - Optical & Coaxial Digital Outputs
  - 96 kHz or 48 kHz Selectable Digital Output
  - Component Video, S-Video, SCART & Composite Video Outputs
  - Color-Coded 5.1 Multichannel Audio Outputs
  - On-Screen Display (English/French/Spanish/German/Italian)
  - Brushed Hairline Aluminum Front Panel
  - RI (Remote Interactive) Remote Control
- \* Discs that have not been properly finalized may only be partially playable or not playable at all.



# DV-SP404E DVD/CD/MP3 CD Player

- Plays DVDs, DVD+R/RWs, DVD-R/RWs, MP3 CDs, WMA CDs, CD-R/RWs, Video CDs, Audio CDs, and JPEG-Encoded CDs\*
  - High-Quality HDMI Output
  - DivX® Video Playable
  - PAL/NTSC Progressive Scan
  - 96 kHz/24-Bit Audio DAC
  - 108 MHz/12-Bit Video DAC
  - Coaxial Digital Output
  - 96 kHz or 48 kHz Selectable Digital Output
  - Component Video, SCART & Composite Video Outputs
  - On-Screen Display (English/French/Spanish/German/Italian)
  - Brushed Hairline Aluminum Front Panel
  - Remote Control
- \* Discs that have not been properly finalized may only be partially playable or not playable at all.

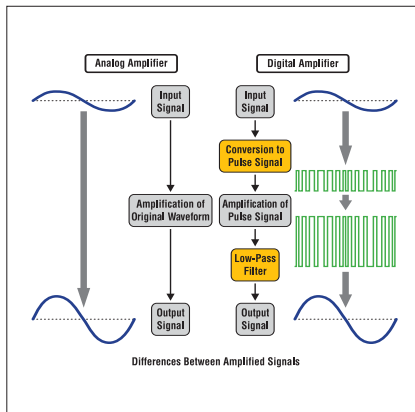




# VL Digital—A Quest for the Perfect Digital Sound

## The Difference Between Analog and Digital Amplifiers

Understanding the amplification process helps to explain the difference between analog and digital amplifiers. In an analog amplifier, the analog input signal is amplified without any modification. In a digital amplifier, the analog input signal is converted into a pulse (digital) signal, and then converted back into an analog signal using a low-pass filter. An analog signal is constantly changing within a range extending from zero to a maximum value. However, a digital signal is comprised of “pulses”—a series of zeros and ones. The significant difference between analog and digital amplifiers is the basic principle used for amplification.



In an amplifier, the power supply circuitry (actually, the capacitors) collects electricity. A transistor (valve) opens when an input signal is received, causing some of the collected energy to flow out through the output jacks. This process simply defines how amplification works. Analog amplifier signals continuously change: the transistor must adjust the size of the “valve” opening to match the constantly changing input signal. On the other hand, with a digital amplifier, the signal consists of either a pulse (1) or no pulse (0)—there are no intermediate values. The “switches” in a digital amplifier are completely open (switch is on) when there is a pulse or completely closed (switch is off) when there is no pulse.

## Why the Interest in Digital Amplifiers?

First of all, we should consider an analog amplifier, where the signal always lies between zero and a maximum value. Therefore, the amplifier elements function as variable resistors that adjust the amount of electricity supplied by the power supply to match the input level. Electricity that does not flow through when the amplifier elements are closed is lost. For this reason, analog amplifiers can only achieve a maximum power efficiency (relative to the power supply) of about 70%. This large amount of energy loss means that a substantial amount of heat is generated.

In a digital amplifier, the signal level is either 0 or 1, and the amplifier elements function as switches with two states, ON and OFF. The amount of power loss is very small. Consequently, digital amplifiers typically have very high efficiency—90% or so. Very little energy is generated, so heat-dissipating parts such as heat sinks can be smaller and the amplifiers can be more compact.

## Possibilities of the Digital Amplifier

At Onkyo, we are not only interested in higher efficiency and a more compact size, we also believe that there is a great opportunity to build a digital amplifier with improved sound. When a digital amplifier's signal value is 1 (the current is flowing from the power supply to the speakers), the amplification elements in the output stage remain completely open. Broadly speaking, there is little resistance that consumes power between the power supply and the speakers. Consequently, there is no loss of power. In contrast, with analog amplifiers, there is always some resistance between the power supply and speakers because of the manner in which the amplifier operates.

Furthermore, since the output elements are used as switches in a digital amplifier, properties such as linearity (crucial in an analog amplifier) are not particularly significant. By reducing the number of parameters that the amplifier must control, it is easier to ensure that the elements will be driven as intended in all circumstances. We believe that the potential of digital amplifiers lies in more accurate signal reproduction.

Another potential attraction is that low-frequency reproduction places little load on the power supply. Analog recording techniques have limitations when recording low-frequency sounds. However, digital recording, which has become the dominant method for storing and reproducing audio data, has eliminated these limitations. For this reason, more and more of today's music is based on powerful low-frequency sounds. These recordings contain bass power in all its intensity.

## Onkyo's Approach to Digital Amplifiers

Based on the research of Onkyo's development team, we believe power supply is essential to achieving quality sound from digital amplifiers, even though their efficiency far exceeds that of analog amplifiers. If we go back to the basics of amplification, we want to reproduce sound that you can feel, not just hear. For this purpose, we need a power supply with the lowest possible impedance and superior transient response. Very few manufacturers are building digital amplifiers with power supplies that follow our concept.

A great deal of attention has been given to power supply performance in every Onkyo digital amplifier. In fact, in our digital amplifiers, we have taken this concept even further by including large-capacity transformers.

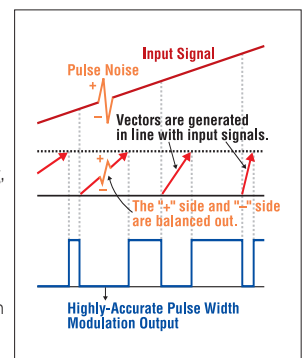
## Pulse Width Modulation (PWM) and Onkyo's VL (Vector Linear) Digital

In digital amplifiers, there are two methods of pulse conversion: pulse width modulation (PWM), in which analog quantity is represented by the width of the pulse, and pulse density modulation (PDM), in which analog is represented by the number of pulses. Onkyo uses the PWM approach for a number of reasons:

- 1) PWM produces far less digital noise in the higher frequencies than PDM.
- 2) PWM is more efficient than PDM in terms of delay relative to the pulse input.
- 3) PDM is dependent on a large amount of negative feedback (NFB)—approaching 100%. Even in an analog amplifier, a lot of NFB will negatively affect the sound.

Up to now, Pulse Width Modulation (PWM) has been used as an efficient method of amplifying audio signals.

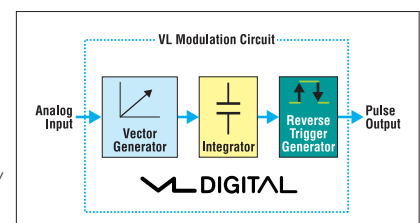
Theoretically, this method should result in accurate analog-to-digital conversion. In reality, a digital amplifier generates a lot of “noise spikes” from sources external to the modulator circuitry. This spike noise introduces errors into the inversion timing, making accurate conversion into pulse widths impossible. So, to further improve the precision of amplifiers, we've had to push even further. Our response is a highly accurate analog-to-digital conversion circuit—VL Digital—that is unaffected by noise in the analog signal.



Onkyo's VL (Vector Linear) Digital technology comprises a vector generator, an integrator (like a charger) and an inversion trigger generator. When the analog input signal is received, the vector generator outputs a current proportional to the size of the analog input. This current is sent to the integrator, where it is “charged”. When the charge quantity reaches a specified value, the trigger operates and inverts the output pulse. Circuits charge and invert alternately, performing pulse width modulation proportional to the analog signal.

The upper and lower portions of the spike noise waveform are symmetrical, so they have the same area. Therefore, if the analog signal contains spike noise, their charge quantities will cancel each other out. This will ensure accurate pulse width modulation at all times.

Onkyo's third-generation VL Digital technology includes an inverted Darlington circuit that goes beyond earlier versions to accurately produce a current flow based on the input voltage.



## A-933 Integrated Digital Amplifier

- 80 W/Ch, Continuous 8  $\Omega$ , 1 kHz, DIN
- Exclusive Onkyo VL Digital Technology
- All Discrete Output Stage Circuitry
- Dual Toroidal Power Transformers
- Low Impedance, Thick Bus Plate
- Tone Control (Bass/Treble/Super Bass)
- Direct Mode
- 5 Audio Inputs and 2 Outputs
- Phono Input
- Main In Terminals
- Precision Motor-Driven Volume Control
- A/B Speaker Selector and Outputs
- Subwoofer Pre Out
- Banana Plug-Compatible Speaker Posts
- Brushed Hairline Aluminum Front Panel
- Hi-Rigidity, Anti-Resonant Chassis
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control
- WHD: 275 x 103 x 328 mm
- 7.5 kg



VL DIGITAL RI

## C-733 CD Player

- Plays Audio CDs and CD-R/RWs
- VLSC (Vector Linear Shaping Circuitry)
- 192 kHz/24-Bit DAC
- DLA Link (Sets Peak Levels When One-Touch Recording to an Onkyo MD Recorder)
- Super Precision Clock ( $\pm 1.5$  ppm)
- 2 Optical Digital Outputs
- 25-Track Programming
- Repeat/Random/Memory Playback
- Brushed Hairline Aluminum Front Panel
- Hi-Rigidity, Anti-Resonant Chassis
- Ultra-Smooth CD Loading Mechanism
- Direct Digital Path
- Blue FL Display
- RI (Remote Interactive) System Compatible
- WHD: 275 x 103 x 304 mm
- 4.5 kg



DISC VECTOR LINEAR SHAPING CIRCUITRY 192/24 DIRECT DIGITAL PATH DLA RI

## T-433 FM/AM RDS Tuner

- Automatic FM/AM Scan Tuning
- 30 FM/AM Presets
- RDS (CT/PS/RT)
- 4 Timer Mode Settings (Play or Rec/Once or Every)
- Sleep Timer
- Brushed Hairline Aluminum Front Panel
- Hi-Rigidity, Anti-Resonant Chassis
- RI (Remote Interactive) System Compatible
- WHD: 275 x 78 x 309 mm
- 3.0 kg



RDS RI



## PHA-933 Amplifier, CD Player & Tuner Package

A-933 Integrated Digital Amplifier

T-433 FM/AM RDS Tuner

C-733 CD Player

(See above)



## A-1VL Integrated Digital Amplifier

- 100 W/Ch, Continuous 8  $\Omega$ , 1 kHz, DIN
- Exclusive Onkyo VL Digital Technology
- Dual Toroidal Power Transformers
- Low-Impedance, Copper Bus Plates
- Audiophile-Grade Parts
- Precision Motor-Driven Volume Control
- Direct Mode
- Phono Input
- Main In Terminals
- Pre Out Terminals
- Brass Pin Jacks
- High-Rigidity, Anti-Resonant Chassis and Brass Stabilizers
- High-Grade Banana Plug-Compatible Transparent Speaker Posts
- Heavy-Duty Power Cord (Inlet Type)
- Full-Function Remote Control



## A-9755 Integrated Digital Amplifier

- 150 W/Ch, Continuous 8  $\Omega$ , 1 kHz, DIN
- Exclusive Onkyo VL Digital Technology
- Pure Stream Power Supply (2 Transformers)
- All Discrete Output Stage Circuitry
- Low-Impedance, Thick Bus Plate
- Optimum Gain Volume Circuitry
- Audiophile-Grade Capacitor
- Precision Motor-Driven Volume Control
- Tone Control (Bass, Treble, Loudness On/Off)
- Pure Direct Mode
- Discrete Phono Equalizer Circuitry
- 6 Gold-Plated Audio Inputs and 2 Outputs
- Phono Input
- Main In Terminals
- Blue Illuminated Volume Control
- High-Rigidity, Anti-Resonant Chassis and Brass Stabilizers
- Extruded Aluminum Volume and Selector Knobs
- Speaker A/B Drive
- Gold-Plated Banana Plug-Compatible Transparent Speaker Posts
- Heavy-Duty Power Cord (Inlet Type)
- Compatible with RI Dock for the iPod
- RI (Remote Interactive) Remote Control



## A-9555 Integrated Digital Amplifier

- 100 W/Ch, Continuous 8  $\Omega$ , 1 kHz, DIN
- Exclusive Onkyo VL Digital Technology
- Pure Stream Power Supply
- All Discrete Output Stage Circuitry
- Low-Impedance, Thick Bus Plate
- Optimum Gain Volume Circuitry
- Precision Motor-Driven Volume Control
- Tone Control (Bass, Treble, Loudness On/Off)
- Pure Direct Mode
- Discrete Phono Equalizer Circuitry
- 6 Audio Inputs and 2 Outputs
- Phono Input
- High-Rigidity, Anti-Resonant Chassis
- Aluminum Volume Knob and Selector Knobs
- Speaker A/B Drive
- Banana Plug-Compatible Speaker Posts
- Compatible with RI Dock for the iPod
- RI (Remote Interactive) Remote Control



## C-1VL Audiophile-Grade CD Player

- Plays Audio CDs and CD-R/RWs
- VLSC (Vector Linear Shaping Circuitry)
- Super Precision Clock ( $\pm 1.5$  ppm)
- 192 kHz/24-Bit Wolfson® DAC
- Direct Digital Path
- 3 Digital Outputs (2 Optical/1 Coaxial)
- Digital Out On/Off
- Brass Pin Jacks
- High-Rigidity, Anti-Resonant Chassis and Brass Stabilizers
- Heavy-Duty Power Cord (Inlet Type)
- High-Grade Pin Cable Included
- Remote Control



192/24 DIRECT DIGITAL PATH

## DX-7555 CD Player

- Plays Audio CDs, MP3 CDs, CD-R/RWs
- VLSC (Vector Linear Shaping Circuitry)
- Super Precision Clock ( $\pm 1.5$  ppm)
- Digital Filter and Phase Control
- Massive Power Transformer
- Wolfson® 192 kHz/24-Bit DAC
- Direct Digital Path
- 2 Digital Outputs (Optical/Coaxial)
- Headphone Jack with Volume Control
- Quick Navigation for MP3 CD Playback
- 25-Step Memory Playback and 4 Repeat Modes
- 4-Mode Dimmer
- High-Rigidity, Anti-Resonant Chassis
- Brushed Hairline Aluminum Front Panel
- RI (Remote Interactive) Remote Control



MP3 192/24 DIRECT DIGITAL PATH RI

## TX-8522 FM/AM RDS Stereo Receiver

- 100 W/Ch, Continuous 4  $\Omega$ , 1 kHz, DIN
- 100 W/Ch, 4  $\Omega$ , 1 kHz, IEC
- WRAT (Wide Range Amplifier Technology)
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- Massive Power Transformer
- 3 Audio and 2 A/V Inputs
- Phono Input
- 2 Audio Outputs and 1 A/V Output
- Monitor Output
- IR Input/Output
- Video and Cassette Tape Dubbing
- 40 FM/AM Presets with Station Naming
- RDS (PS/PTY/RT/TP)
- Pure Audio/Direct Mode
- Speaker A/B Terminals
- Banana Plug-Compatible Speaker Posts
- Brushed Hairline Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control



WRAT RDS RI

## TX-8222 FM/AM RDS Stereo Receiver

- 70 W/Ch, Continuous 4  $\Omega$ , 1 kHz, DIN
- 70 W/Ch, 4  $\Omega$ , 1 kHz, IEC
- WRAT (Wide Range Amplifier Technology)
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- Massive Power Transformer
- 5 Audio Inputs and 2 Outputs
- Phono Input
- IR Input/Output
- 40 FM/AM Presets
- RDS (PS/PTY/RT/TP)
- Speaker A/B Terminals
- Banana Plug-Compatible Speaker Posts
- Brushed Hairline Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control



WRAT RDS RI

## A-9211 Integrated Amplifier

- 60 W/Ch, 4  $\Omega$ , 1 kHz, DIN
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- Shielded Heavy-Duty Power Supply
- Aluminum-Extruded Heat Sink
- Speaker A/B Terminals
- Direct Source/Tone Bypass Switch
- 5 Audio Inputs
- Phono Input
- Brushed Hairline Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control



RI

## T-4211 FM/AM RDS Tuner

- Digital Synthesized Tuning
- High Sensitivity & Superb Selectivity
- 30 FM/AM Random Presets
- 2-Mode APR (Automatic Precision Reception)
- RDS (CT/PS/PTY/RT/TP)
- Selectable Character Display Input
- 3 Station-Group Presets (10 Stations Each)
- Brushed Hairline Aluminum Front Panel
- RI (Remote Interactive) System Compatible



RDS RI

## DX-7333 CD Player

- Plays Audio CDs
- Proprietary AccuPulse Quartz System
- 2 Optical Digital Outputs
- Next Selection Function
- Memory Reverse (Program Delete)
- Peak-Level Search
- 36-Track Random Memory
- 3 Repeat Modes (Entire Disc/Single Track/A-B Block)
- Headphone Jack with Volume Control
- Brushed Hairline Aluminum Front Panel
- RI (Remote Interactive) Remote Control



## TA-RW255 Double Auto-Reverse Cassette Deck

- Dolby® B and C Noise Reduction
- CD-to-Tape Synchro Recording
- Rec Level Control
- Auto Tape-Bias Adjustment
- Auto-Space and Rec Mute
- High Speed Dubbing
- 8-Segment Peak Level Meters
- Peak Hold
- Brushed Hairline Aluminum Front Panel
- RI (Remote Interactive) System Compatible



## DX-C390 6-Disc CD Carousel Changer

- Plays Audio CDs, MP3 CDs, CD-R/RWs
- VLSC (Vector Linear Shaping Circuitry)
- VQA (Vector Quantizer Audio) Conversion Technology
- Change up to 5 Discs During Play
- 192 kHz/24-Bit Audio DAC
- Direct Digital Path
- Optical & Coaxial Digital Outputs
- Fixed Output
- 40-Track Programming
- Next Selection Function
- 6 Repeat Modes (Entire Disc/All Discs/Random Tracks/Programmed Tracks/Random Memory/Single Track)
- Brushed Hairline Aluminum Front Panel
- RI (Remote Interactive) Remote Control



# Doing More with Your iPod—with Onkyo's Imaginative Sight and Sound

## DS-A1 Remote Interactive Dock

Simply place your iPod in the DS-A1 Remote Interactive Dock for the iPod connected to an Onkyo amplifier/receiver/system\* to experience the powerfully rich sound of Onkyo audio. Control your music from your RI remote controller and charge your iPod

while you enjoy your digital music downloads—and photos—through Onkyo's "Imaginative Sight and Sound".

\* Compatible with over 90% of Onkyo components.

### Control From Afar

RI-connectivity brings effortless remote control to your iPod's vast library of music—or digital photos—without you having to budge from the sofa.

### Pristine Onkyo Playback

Put those earphones down and give your iPod music a turbo-boost. The DS-A1 provides the link to an absorbing, room-filling sound experience.



### Relive Those Magical Moments

Share those memorable photos through your home theater's larger display, by connecting your photo-enabled iPod with the DS-A1.

### Charged and Ready to Go

More than just a conduit to your audio system, the DS-A1 also works as a charging station. So, while you're powering up your favorite tunes, your iPod's powering up too.

### iPod Models Compatible with the DS-A1 (as of March 2006)

- 5th generation iPod
- iPod nano
- iPod photo
- iPod mini
- 4th generation iPod with click wheel
- 3rd generation iPod with touch wheel

- Auto Selector Function
- Time Play/Sleep Timer Function
- Alarm Function
- JPEG Capable
- All Cables Included (RI, S-Video, Audio, Power)
- WHD: 112 x 56 x 112 mm
- 220 g

**WHAT HI-FI?**  
SOUND AND VISION



(September Issue 2005)







## HT-S990THX

7.1-Channel THX™ Certified A/V Home Theater Receiver/  
Speaker Package

When you really want a home theater package that pushes a few limits, the THX Certified HT-S990THX does it in impressive style. Encompassing every surround sound format (with future high-definition formats on the horizon), the HT-S990THX makes every movie a memorable entertainment occasion. You'll also find that it integrates with the most sophisticated A/V components or HDTVs available. Also, with numerous fine-tuning functions, you can tweak your system to match your other components and fit your home environment. If you want power, precision and versatility from your system, the HT-S990THX puts you up there with the best.

### HT-R940

7.1-Channel THX™ Certified A/V Surround Home Theater Receiver



- 130 W/Ch, 8  $\Omega$ , 1 kHz, IEC • THX™ Certified • THX™ Surround EX™, DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- H.C.P.S. (High Current Power Supply) massive high power transformer • 192 kHz/24-bit DACs for all channels • HDTV-capable (50 MHz) component video switching (3 inputs/1 output) • Component video upconversion with TBC (Time Base Corrector) • WRAT

- (Wide Range Amplifier Technology) • 3 S-Video inputs and 2 outputs • 4 digital inputs (3 optical/1 coaxial) • Subwoofer pre out • Optimum gain volume circuitry • Advanced 32-bit processing DSP chip • Non-scaling configuration • Color-coded 7.1 multichannel inputs (ready for upcoming Dolby® Digital and DTS® audio formats for high-definition discs)
- Speaker A/B drive • Color-coded dual banana plug-compatible speaker posts (except speaker B) • Crossover adjustment (40/50/60/80/100/120/150/200 Hz) • A/V sync control function (up to 100 ms) • Compatible with RI Dock for the iPod • Preprogrammed RI (Remote Interactive) remote control • WHD: 435 x 151 x 377 mm • 10.2 kg

### HTP-940 7.1-Channel Home Theater Speaker System

#### SKF-940F 2-Way Acoustic-Suspension Front Speakers

- 12 cm A-OMF diaphragm woofer x 2 • 2.5 cm soft-dome tweeter • Magnetically shielded
- Impedance: 8  $\Omega$  • Frequency response: 50 Hz–45 kHz • Max. input power: 130 W
- WHD: 158 x 433 x 199 mm • 5.3 kg

#### SKC-940C 2-Way Acoustic-Suspension Center Speaker

- 12 cm A-OMF diaphragm woofer x 2 • 2.5 cm soft-dome tweeter • Magnetically shielded
- Impedance: 8  $\Omega$  • Frequency response: 50 Hz–45 kHz • Max. input power: 130 W
- WHD: 433 x 158 x 199 mm • 5.3 kg

#### SKM-940S/SKB-940 2-Way Acoustic-Suspension Surround/Surround Back Speakers

- 13 cm A-OMF diaphragm woofer • 2.5 cm soft-dome tweeter • Impedance: 8  $\Omega$
- Frequency response: 50 Hz–45 kHz • Max. input power: 130 W • WHD: 200 x 275 x 169 mm • 3.5 kg

#### SKW-940 Acoustic-Suspension Powered Subwoofer

- Built-in 230 W amplifier • 30 cm cone woofer • Auto-standby/On circuitry • Frequency response: 20 Hz–100 Hz • WHD: 380 x 444 x 429 • 15.5 kg

\*All speakers include color-coded speaker terminals and speaker cable.



## HT-S590

5.1-Channel A/V Surround Home Theater Receiver/Speaker Package

Discovering that your home theater's audio system lacks drive and finesse can be a deflating experience. The HT-S590 receiver/speaker package offers a one-stop solution of riveting surround sound for home theater. The HT-S590 will gel with practically any of today's A/V components—that's also reassuring with the emergence of high-definition displays. Considering the quality of its parts and construction, the HT-S590 is an affordable home theater package that will provide you with endless hours of scintillating entertainment.

### HT-R340

5.1-Channel A/V Surround Home Theater Receiver



- 110 W/Ch, 6  $\Omega$ , 1 kHz, IEC • DTS®, DTS® Neo:6 5.1, Dolby® Digital, Dolby® Pro Logic® II
- H.C.P.S. (High Current Power Supply) massive high power transformer • 192 kHz/24-bit DACs for all channels • HDTV-capable component video switching (3 inputs/1 output)

- Advanced 32-bit processing DSP chip • OR-EQ™ equalizer function • 3 digital inputs (2 optical/1 coaxial) • CinemaFILTER™ • Optimum gain volume circuitry • Non-scaling configuration • A-Form listening mode memory • Speaker A/B drive • Color-coded speaker terminals • Crossover adjustment (40/50/60/80/100/120/150/200 Hz) • A/V sync control function (fixed at 0/20/40 ms) • RI (Remote Interactive) remote control • WHD: 435 x 150 x 369 mm • 9.6 kg

### HTP-340 5.1-Channel Home Theater Speaker System

#### SKF-340F 2-Way Bass Reflex Front Speakers

- 8 cm cone woofer • 2 cm ceramic tweeter • Magnetically shielded • Impedance: 6  $\Omega$
- Max. input power: 120 W • Frequency response: 80 Hz–22 kHz • WHD: 116 x 218 x 127 mm • 0.9 kg

#### SKC-340C 2-Way Bass Reflex Center Speaker

- 8 cm cone woofer x 2 • 2 cm ceramic tweeter • Magnetically shielded • Impedance: 6  $\Omega$
- Max. input power: 120 W • Frequency response: 80 Hz–22 kHz • WHD: 300 x 128 x 118 mm • 1.5 kg

#### SKM-340S 2-Way Bass Reflex Surround Speakers

- 8 cm cone woofer • 2 cm ceramic tweeter • Impedance: 6  $\Omega$  • Max. input power: 120 W • Frequency response: 80 Hz–22 kHz • WHD: 116 x 218 x 127 mm • 0.7 kg

#### SKW-340 Bass Reflex Subwoofer

- 20 cm cone woofer • Max. input power: 125 W • Frequency response: 30 Hz–150 Hz
- WHD: 235 x 461 x 410 mm • 8.1 kg



## D-312E

### 2-Way Bass Reflex Speakers

A-OMF

- 16 cm A-OMF Monocoque diaphragm woofer • 4 cm ring-drive tweeter • Heavy-duty 6.5 cm voice coil • V-Line Edge to counteract unwanted diaphragm vibration • Aero Acoustic Drive for powerful and natural sound • Isolated wiring network design • WIMA film capacitor • MDF cabinet and wooden side panels • Gold-plated, bi-wiring, banana plug-compatible speaker posts • Impedance: 4  $\Omega$  • Magnetically shielded • Max. input power: 200 W • Frequency response: 34 Hz–100 kHz • WHD: 236 x 353 x 346 mm • 12.2 kg



## D-302E

### 2-Way Bass Reflex Speakers

A-OMF

- 16 cm A-OMF Monocoque diaphragm woofer • 4 cm ring-drive tweeter • Die-cast frame construction to prevent vibrations • V-Line Edge to counteract unwanted diaphragm vibration • Aero Acoustic Drive for powerful and natural sound • Wood-finished MDF cabinet • Gold-plated, banana plug-compatible speaker posts • Magnetically shielded • Max. input power: 200 W • Frequency response: 34 Hz–100 kHz • WHD: 210 x 347 x 363 mm • 10.8 kg



## D-112E

### 2-Way Bass Reflex Speakers

A-OMF

- 10 cm A-OMF Monocoque diaphragm woofer • 3 cm ring-drive tweeter • Supported by a large voice coil (3.8 cm) • V-Line Edge to counteract unwanted diaphragm vibration • Aero Acoustic Drive for powerful and natural sound • High-quality network circuit with S.G.L. (Steady Ground Level) • Wood-finished cabinet with MDF baffle • Gold-plated, banana plug-compatible speaker posts • Magnetically shielded • Max. input power: 120 W • Frequency response: 50 Hz–100 kHz • WHD: 156 x 249 x 221 mm • 4.1 kg



## D-TK10

### 2-Way Bass Reflex Speakers

A-OMF

- 10 cm A-OMF Monocoque diaphragm woofer • 3 cm ring-drive tweeter • Supported by a large voice coil • Takamine Acoustic Voicing Technology construction • Aero Acoustic Drive for powerful and natural sound • Network circuit with high-quality parts • Gold-plated, banana plug-compatible speaker posts • Frequency response: 50 Hz–100 kHz • Max. input power: 200 W • WHD: 133 x 276 x 220 mm • 2.9 kg



## SKS-HT530

### 7.1-Channel Home Theater Speaker System

#### SKF-530F 2-Way Bass Reflex Front Speakers

- 12 cm OMF diaphragm woofer x 2 • 2.5 cm balanced-dome tweeter • Frequency response: 55 Hz–50 kHz • Magnetically shielded • Impedance: 8  $\Omega$  • Max. input power: 110 W • WHD: 157 x 434 x 200 mm • 3.9 kg

#### SKC-530C 2-Way Bass Reflex Center Speaker

- 12 cm OMF diaphragm woofer x 2 • 2.5 cm balanced-dome tweeter • Frequency response: 55 Hz–50 kHz • Magnetically shielded • Impedance: 8  $\Omega$  • Max. input power: 110 W • WHD: 434 x 157 x 200 mm • 3.9 kg

#### SKM-530S/SKB-530 2-Way Bass Reflex Surround/Surround Back Speakers

- 8 cm cone woofer • 2 cm ceramic tweeter • Frequency response: 60 Hz–20 kHz • Impedance: 8  $\Omega$  • Max. input power: 110 W • WHD: 175 x 265 x 102 mm • 1.4 kg

#### SKW-530 Bass Reflex Powered Subwoofer

- Built-in 230 W amplifier • Auto-standby/On circuitry • 25 cm cone woofer • Frequency response: 25 Hz–150 Hz • WHD: 275 x 518 x 411 mm • 13.6 kg



## SKF-3600

### 2-Way Bass Reflex Speakers

- 8 cm cone woofer x 2 • 2.5 cm balanced-dome tweeter • Magnetically shielded • Max. input power: 100 W • Frequency response: 55 Hz–35 kHz • WHD: 300 x 929 x 300 mm (with speaker base), 104 x 913 x 138 mm (without speaker base) • 6.1 kg (with speaker base), 4.5 kg (without speaker base)

## SKW-204

### Bass Reflex Powered Subwoofer

- Built-in 230 W amplifier • Auto-standby/On circuitry • 25 cm cone woofer • Continuously variable crossover (50 Hz–200 Hz) • Phase switch (0° or 180°) • Line level inputs • Impedance: 100 k $\Omega$  • Frequency response: 25 Hz–150 Hz • WHD: 275 x 473 x 428 mm • 11.8 kg





CR-515, D-N9BX(D)

## Compact and Stylish with a Rich, Spacious Sound

Just take one look at the CS-515 CD receiver system, and you'll sense you're looking at an accomplished audio component. Its solid build quality and handsome aluminum front panel lend a smart look to the key element to this system: an impressive soundstage for any room in your home. With Onkyo's Wide

Range Amplifier Technology (WRAT) laying the basis for your sound, you'll be pleasantly surprised at the drive and detail of this system. What's more, with the delivery of CDs and MP3s burnt to disc, you're giving yourself a decent range of music sources.

### CS-515

CD Receiver System

#### CR-515 SILVER BLACK

CD Receiver

- 26 W/Ch, Continuous 4  $\Omega$ , 1 kHz
- Wolfson® Single-Bit DAC
- WRAT (Wide Range Amplifier Technology)
- VLSC (Vector Linear Shaping Circuitry)
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- 4 Audio Inputs and 2 Outputs
- Optical Digital Output
- 4 Timer Mode Settings (Play or Rec/Once or Every)
- Sleep Timer
- 30 FM/AM Presets
- RDS (CT/PS/RT)
- Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control
- WHD: 205 x 103 x 356 mm
- 5.3 kg

*\*Specifications subject to change*

#### D-N9BX(D/B)

2-Way Bass Reflex Speakers

- 13 cm A-OMF Monocoque Diaphragm Woofer
- 3 cm Ring-Drive Tweeter
- Aero Acoustic Drive for Powerful and Natural Sound
- V-Line Edge to Counteract Unwanted Diaphragm Vibration
- Magnetically Shielded
- Impedance: 4  $\Omega$
- Max. Input Power: 70 W
- Frequency Response: 45 Hz–100 kHz
- WHD: 167 x 290 x 247 mm
- 4.1 kg

*\*Specifications subject to change*

**A-OMF**  
.....



WRAT WIDE RANGE AMPLIFIER TECHNOLOGY VECTOR LINEAR SHAPING CIRCUITRY DISC DIGITAL AUDIO MP3 RDS RI



# Providing the Perfect Musical Backdrop for Your Home

## CS-315

CD Receiver System

### CR-315 SILVER BLACK

CD Receiver

- 26 W/Ch, Continuous 4  $\Omega$ , 1 kHz
- Wolfson® Single-Bit DAC
- WRAT (Wide Range Amplifier Technology)
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- 3 Audio Inputs and 1 Output
- Optical Digital Output
- 4 Timer Mode Settings (Play or Rec/Once or Every)
- Sleep Timer
- 30 FM/AM Presets
- RDS (CT/PS/RT)
- Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control
- WHD: 205 x 103 x 356 mm
- 5.3 kg

\*Specifications subject to change

**WRAT** **DSD** **RDS RI**

### D-N7BX(Y/B)

2-Way Bass Reflex Speakers

- 13 cm A-OMF Monocoque Diaphragm Woofer
- 3 cm Ring-Drive Tweeter
- Aero Acoustic Drive for Powerful and Natural Sound
- V-Line Edge to Counteract Unwanted Diaphragm Vibration
- Magnetically Shielded
- Impedance: 4  $\Omega$
- Max. Input Power: 70 W
- Frequency Response: 45 Hz–100 kHz
- WHD: 167 x 290 x 246 mm
- 3.9 kg

\*Specifications subject to change

**A-OMF**



CR-315, D-N7BX(Y)

# Loving Your Music Every Bit as Much as You Do

## CS-320

CD Receiver System

### CR-N7 SILVER

CD Receiver

- 14 W/Ch, Continuous 8  $\Omega$ , DIN
- WRAT (Wide Range Amplifier Technology)
- High-Current, Low-Impedance Drive
- Discrete Output Stage Circuitry
- 3 Audio Inputs and 2 Outputs
- 2-Step Super Bass Control
- Subwoofer Pre Out
- Single-Bit D/A Converter
- 25-Track Programming
- 4 Play Modes (Normal/Memory/Random/Group)
- Optical Digital Output
- 4 Timer Mode Settings (Play or Rec/Once or Every)
- Motor-Driven Volume Control
- Aluminum Front Panel
- Compatible with RI Dock for the iPod
- Full-Function RI (Remote Interactive) Remote Control
- WHD: 205 x 147 x 356 mm
- 4.3 kg

**WRAT** **DSD** **MP3** **RDS RI**

### D-B8

2-Way Bass Reflex Speakers

- 13 cm New A-OMF Diaphragm Woofer
- 2.5 cm Soft-Dome Tweeter
- Aero Acoustic Drive for Powerful and Natural Sound
- V-Line Edge to Counteract Unwanted Diaphragm Vibration
- MDF Cabinet with High-Gloss Piano Finish
- Magnetically Shielded
- Impedance: 4  $\Omega$
- Max. Input Power: 70 W
- Frequency Response: 50 Hz–35 kHz
- WHD: 150 x 241 x 263 mm
- 3.6 kg

**A-OMF**



CR-N7, D-B8



TX-L55, DV-L55

## Providing Perfect Delivery and a Graceful Presence to Home Theater

### TX-L55 6.1-Channel Digital A/V Receiver **SILVER**

- 60 W/Ch, continuous 6  $\Omega$ , 1 kHz, DIN
- Exclusive Onkyo digital amplifier technology
- DTS®-ES™ Discrete/Matrix, DTS® Neo:6, DTS® 96/24, Dolby® Digital EX™, Dolby® Pro Logic® IIx
- High-current, low-impedance drive
- Discrete output stage circuitry
- Non-scaling configuration
- 5 DSP modes
- 2 component video inputs and 1 output
- 3 digital inputs
- CinemaFILTER™
- Subwoofer pre out
- Color-coded 5.1 multichannel inputs
- Compatible with RI Dock for the iPod
- Preprogrammed RI (Remote Interactive) remote control



### DV-L55 DVD/CD/MP3 CD Player **SILVER**

- Plays DVDs, DVD-R/RWs, MP3 CDs, WMA CDs, CD-R/RWs, video CDs, audio CDs and JPEG-encoded CDs\*
- 54 MHz/10-bit video DAC
- PAL/NTSC progressive scan
- 192 kHz/24-bit audio DAC
- 96 kHz or 48 kHz selectable digital output
- Optical & coaxial digital outputs
- Full set of A/V outputs (component video, S-Video, SCART & composite video)
- DVD quick-start play
- High-resolution on-screen display (English/French/Spanish/German/Italian)
- Full-function RI (Remote Interactive) remote control

\* Discs that have not been properly finalized may only be partially playable or not playable at all.



CR-L5, D-N3X

## Enliven Any Room with Elegant Style and Crisp, Clear Sound

### CR-L5 Ultra-Slim CD Receiver **SILVER**

- 50 W/Ch, continuous 4  $\Omega$ , 1 kHz, DIN
- 192 kHz/24-bit audio DACs
- VLSC (Vector Linear Shaping Circuitry)
- WRAT (Wide Range Amplifier Technology)
- High-current, low-impedance drive
- Direct mode function
- 2 digital outputs (optical/coaxial)
- Subwoofer pre out
- Speaker A/B drive
- Compatible with RI Dock for the iPod
- Full-function RI (Remote Interactive) remote control



### D-N3X 2-Way Bass Reflex Speakers

- 12 cm OMF diaphragm woofer
- 2.5 cm soft-dome tweeter
- Magnetically shielded
- Extensively braced MDF cabinet
- Impedance: 5  $\Omega$
- Max. input power: 70 W
- Frequency response: 60 Hz–35 kHz
- WHD: 130 x 220 x 216 mm
- 2.9 kg



## GLOSSARY

**THX™ TECHNOLOGY AND QUALITY ASSURANCE**

Filmmaker George Lucas originally created THX™ as a studio-reference monitoring tool, and THX Ltd. is now recognized as the leading provider of product and venue certification for the cinema and home entertainment industries. THX™ Surround EX™ extends the 5.1-channel format by adding a back surround channel matrixed from the left and right surround channels. THX™ Select2™ (for small- to medium-sized rooms) is a certification standard that features THX listening modes, including THX Cinema, THX Music and THX Games modes, as well as Adaptive Speaker Array (ASA) technology for optimizing playback of multichannel movies, music and video games in the home. THX™ Ultra2™ is designed for larger, dedicated home theater environments. Both certification programs include THX features such as Timbre Matching™, Bass Management™, Adaptive Decorrelation™ and Re-Equalization (Re-EQ™).



## DOLBY® DIGITAL TECHNOLOGIES

Dolby is a recognized pioneer of multichannel audio reproduction. And with the upcoming Dolby® Digital Plus and Dolby® TrueHD codecs (back-compatible with Dolby® Digital-enabled A/V receivers), they have also shown that they are a vital leader in home entertainment. Among their current formats, Dolby® Digital EX™ creates six full-bandwidth channels from 5.1-channel sources, using a matrix decoder to create an extra surround channel. Dolby® Pro Logic® IIx transforms any stereo or 5.1 signal into a 6.1- or 7.1-channel output, with modes that enable the listening experience to be tailored to the source material. Game mode, for example, can deliver full-impact special effects signals to the surround speakers. Dolby® Virtual Speaker and Dolby® Headphone are virtual surround technologies.



**DTS® (DIGITAL THEATER SYSTEMS) TECHNOLOGIES**

DTS offers premium sound quality with optimal channel separation. Like Dolby, DTS has two new back-compatible codecs for high-definition formats: DTS®-HD Master Audio and DTS®-HD, both of which will work with standard DTS®, a discrete 5.1-channel system. DTS® Neo:6 derives 6-channel sound from a stereo (2-channel) soundtrack (and DTS® Neo:6 5.1 derives 5.1-channel sound). DTS®-ES™ comprises DTS®-ES™ Discrete, which provides a 6.1-channel system with a discrete back surround channel; and DTS®-ES™ Matrix, which provides a 6.1-channel system with a matrix-encoded back surround channel. DTS® 96/24 offers you the sound quality of the 96/24 master, which can be encoded on DVD-Video or in the video zone of DVD-Audio.



## CinemaFILTER™

The tonal balance of a film soundtrack can be edgy and bright when played back over audio equipment in your home—this is because film soundtracks are designed to be played back in large theaters, using commercial equipment. Onkyo has developed its own solution that restores the correct tonal balance of a movie soundtrack in the smaller environs of your home theater.



## 192 kHz/24-BIT DACs

We include these extremely effective digital-to-analog converters for all main channels in our top receivers. They not only boast a dynamic range of 120 dB, they process information faster and are virtually resistant to clock jitter; to ensure the best possible performance from DVD-Audio, DVD-Video, Super Audio CD and audio CD.

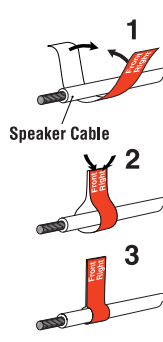


## MULTI-ZONE PLAYBACK THROUGH POWERED ZONE 2 AND ZONE 3

Powered Zone 2 and Zone 3 bring multi-zone entertainment to your home. With Powered Zone 2, you can enjoy one input source in the main room and a different source in another room, through two different connection methods: using a receiver/integrated amp in Zone 2, or using only a pair of speakers in Zone 2. In the former case, you can enjoy 7.1 surround sound in the main room and play a different A/V source in Zone 2. In the latter case, you can have 5.1 surround sound in the main room and play a different (stereo) A/V source in Zone 2. With the TX-NR5000E, it's possible to connect a receiver/integrated amp in a third zone (Zone 3) to enjoy distributed entertainment as in Zone 2. This way, you can enjoy a full 7.1-channel source in the main room, while playing two separate stereo sources in Zone 2 and Zone 3.



## COLOR-CODED SPEAKER TERMINALS

[illegible]

These color-coded speaker terminals take the guesswork out of matching wires to the correct terminals. Simply attach the color-coded label to the speaker cable, and attach the cable to the same-colored speaker terminal for easy speaker connection.



## CROSSOVER ADJUSTMENT

Depending on your choice of Onkyo A/V receiver, you can set the subwoofer crossover at different frequencies. Being able to choose where the subwoofer takes over bass-producing responsibilities from the front speakers gives you more precise reproduction of movie soundtracks. It also means you can select from a wider range of speaker packages, and match speakers with differing crossover frequencies to your home theater system.

## ONKYO'S MICRO FIBER (OMF), A-OMF & A-OMF MONOCOQUE



Onkyo Micro Fiber (OMF), made from a pure cotton weave to absorb vibrations, was first developed to create a thick yet rigid diaphragm that enables an extremely fast, accurate response. The next stage saw the advent of A-OMF, which incorporates a PEN (polyethylene naphthalate) layer with a flexible cotton weave that makes speaker cones even

stronger and more resistant to heat. We then added an aramid layer to create New A-OMF. The evolution has been taken a step further with A-OMF Monocoque—essentially sharing the same material composition as New A-OMF but forming a single, continuous cover over the cone. All four diaphragm types achieve improved midrange clarity and imaging for an astonishingly vivid, natural sound.





# FEATURES

A/V RECEIVERS	TX-NR5000E	TX-SR803E	TX-SR703E	TX-SR674E/TX-SR604E	TX-SR653E	TX-SR504E	TX-SR304E	
POWER SPECIFICATIONS								
POWER OUTPUT*1	FRONT L/R (6 Ω, 1 kHz, DIN)	200 W/Ch	140 W/Ch	130 W/Ch	125 W/Ch; 150 W/Ch*3	125 W/Ch	100 W/Ch; 130 W/Ch*3	90 W/Ch; 100 W/Ch*3
	CENTER (6 Ω, 1 kHz, DIN)	200 W	140 W	130 W	125 W; 150 W*3	125 W	100 W; 130 W*3	90 W; 100 W*3
	SURROUND L/R (6 Ω, 1 kHz, DIN)	200 W/Ch	140 W/Ch	130 W/Ch	125 W/Ch; 150 W/Ch*3	125 W/Ch	100 W/Ch; 130 W/Ch*3	90 W/Ch; 100 W/Ch*3
	SURROUND BACK (6 Ω, 1 kHz, DIN)	200 W/Ch (L/R)	140 W/Ch (L/R)	130 W/Ch (L/R)	125 W/Ch (L/R); 150 W/Ch (L/R)*3	125 W/Ch (L/R)	100 W/Ch (L/R); 130 W/Ch (L/R)*3	90 W/Ch; 100 W/Ch*3
DYNAMIC POWER*2	4 Ω (FRONT)	260 W/Ch	180 W/Ch	170 W/Ch	165 W/Ch	165 W/Ch	140 W/Ch	125 W/Ch
	8 Ω (FRONT)	175 W/Ch	125 W/Ch	115 W/Ch	105 W/Ch	105 W/Ch	95 W/Ch	85 W/Ch
AMPLIFIER DESIGN								
IDENTICAL FULL-BANDWIDTH CHANNELS	7	7	7	7	7	7	5	
REDUCED NFB (NEGATIVE FEEDBACK) DESIGN	✓	✓	✓	✓	✓	✓		
WRAT (WIDE RANGE AMPLIFIER TECHNOLOGY)	✓	✓	✓	✓	✓	✓		
VLSC (VECTOR LINEAR SHAPING CIRCUITRY)	✓	✓	✓	✓	✓	✓		
NON-SCALING CONFIGURATION	✓	✓	✓	✓	✓	✓	✓	
DACS	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 8	192 kHz/24-Bit x 6
HIGH CURRENT LOW IMPEDANCE DRIVE	✓	✓	✓	✓	✓	✓		
ALL DISCRETE OUTPUT STAGE CIRCUITRY	✓	✓	✓	✓	✓	✓		
OPTIMUM GAIN VOLUME CIRCUITRY	✓ (Linear)	✓	✓	✓	✓	✓	✓	
DIGITAL UPSAMPLING	✓	✓	✓	✓	✓	✓	✓	
HOME THEATER FEATURES								
THX™ CERTIFIED	✓ (Ultra2)	✓ (Select2)	✓ (Select2)					
EXTENDED FREQUENCY RESPONSE (+1 dB, -3 dB)	5 Hz-100 kHz	10 Hz-100 kHz	10 Hz-100 kHz	10 Hz-100 kHz	10 Hz-100 kHz	5 Hz-100 kHz	10 Hz-50 kHz	
DTS®, DTS®-ES™ DISCRETE/MATRIX, DTS® 96/24	✓	✓	✓	✓	✓	✓	✓(DTS®)	
DTS® Neo:6	✓	✓	✓	✓	✓	✓	✓(5.1)	
DOLBY® DIGITAL, DOLBY® DIGITAL EX™	✓	✓	✓	✓	✓	✓	✓(Dolby® Digital)	
DOLBY® PRO LOGIC® IIx	✓	✓	✓	✓	✓	✓	✓(Pro Logic II)	
AUTO SPEAKER SET-UP WITH MICROPHONE		✓	✓	✓ (Audyssey 2EQ™)	✓	✓		
A-FORM LISTENING MODE MEMORY	✓	✓	✓	✓	✓	✓	✓	
HDMI UPCONVERSION	✓			✓ (TX-SR674E only)				
COMPOSITE TO S-VIDEO CONVERSION	✓	✓	✓	✓	✓			
COMPOSITE AND S-VIDEO TO COMPONENT VIDEO UPCONVERSION	✓	✓	✓	✓	✓			
TBC (TIME BASE CORRECTOR)	✓	✓	✓	✓	✓			
MULTICHANNEL INPUTS	7.1 x 2	7.1	7.1	7.1	5.1	7.1	5.1	
CINEMAFILTER™				✓	✓	✓	✓	
DIGITAL SOUNDFIELD PROCESSING	✓	✓	✓	✓	✓	✓	✓	
LATE NIGHT MODE	✓	✓	✓	✓	✓	✓	✓	
COLOR-CODED SPEAKER TERMINALS	✓	✓	✓	✓	✓	✓	✓	
ON-SCREEN DISPLAY	✓	✓	✓	✓	✓			
ADJUSTABLE DIGITAL DELAY	✓	✓	✓	✓	✓	✓	✓	
CROSSOVER ADJUSTMENT	✓	✓	✓	✓	✓	✓	✓	
INDEPENDENT CROSSOVER ADJUSTMENT FOR F/C/S/SB	✓	✓	✓	✓				
A/V SYNC	✓	✓	✓	✓		✓	✓	
NETWORK FEATURES								
NET-TUNE™	✓							
ETHERNET PORT	✓							
NUMBER OF PRESETS (INTERNET RADIO)	30							
INPUTS/OUTPUTS								
i.LINK DIGITAL PORTS	2							
HDMI INPUTS/OUTPUT	2/1	2/1		2/1				
AUDIO AND AV INPUTS	9/5	3/5	3/5	2/5	2/5	2/4	2/4	
HDTV-READY COMPONENT VIDEO INPUTS/OUTPUTS	4/2	3/1	3/1	3/1	3/1	3/1	3/1	
FRONT-PANEL VIDEO INPUT (WITH S-VIDEO)	✓	✓	✓	✓	✓	✓ (Composite)		
S-VIDEO INPUTS/OUTPUTS	7/4	5/3	5/3	5/3	5/3	3/2		
DIGITAL INPUTS	7 Optical (1 Front panel) 6 Coaxial	5 Optical (1 Front panel) 2 Coaxial	5 Optical (1 Front panel) 2 Coaxial	4 Optical (1 Front panel) 2 Coaxial	4 Optical (1 Front panel) 2 Coaxial	3 Optical 1 Coaxial	2 Optical 1 Coaxial	
DIGITAL OUTPUTS	2 Optical/2 Coaxial	1 Optical	1 Optical	1 Optical	1 Optical			
RS232 CONTROL PORT	✓	✓	✓					
IR INPUTS/OUTPUTS	3/3	1/1	1/0	1/0	1/0			
PRE OUTS								
FRONT L/R, CENTRE	✓	✓	✓					
SURROUND L/R	✓	✓	✓					
SURROUND BACK	✓ (L/R)	✓ (L/R)	✓ (L/R)					
SUBWOOFER	✓ (2)	✓	✓	✓	✓	✓	✓	
OTHER FEATURES								
DOT-MATRIX DISPLAY	✓	✓	✓	✓	✓	✓	✓	
DISPLAY DIMMER	4 Levels	3 Levels	3 Levels	3 Levels	3 Levels	3 Levels	3 Levels	
PURE AUDIO MODE	✓	✓	✓	✓	✓	✓		
DUAL BANANA PLUG-COMPATIBLE SPEAKER POSTS	✓	✓	✓	✓ (Except Zone 2)	✓ (Except Zone 2)	✓ (Except SP-B)		
SLEEP TIMER (90 MINUTES; 10-MIN STEPS)	✓	✓	✓	✓	✓	✓	✓	
PHONO INPUT	✓	✓	✓					
HEADPHONE JACK	✓	✓	✓	✓	✓	✓	✓	
ZONE 2 LINE OUT	✓ (Audio/Video)	✓	✓	✓	✓			
POWERED ZONE 2	✓ (and Zone 3)	✓	✓	✓	✓			
12 VOLT TRIGGERS	5	1 (Zone 2)	1 (Zone 2)	1 (Zone 2)	1 (Zone 2)			
A/B SPEAKER DRIVE	✓					✓	✓	
TUNER FEATURES								
DAB (DIGITAL AUDIO BROADCASTING)					✓			
NUMBER OF PRESETS (FM/AM)	40	40	40	40	40 (FM/AM/DAB)	30	30	
RDS (RADIO DATA SYSTEM)	✓	✓	✓	✓	✓	✓	✓	
CONTROL								
RI REMOTE CONTROL	Prepro/Learning/ Backlit	Prepro/Learning/ Backlit	Prepro/Learning/ Backlit	Prepro	Prepro/Learning	Prepro	✓	
MACRO FUNCTION	✓	✓	✓		✓			
ABSOLUTE/RELATIVE VOLUME DISPLAY	✓	✓	✓	✓	✓	Absolute	Absolute	
INTELLIVOLUME	✓	✓	✓	✓	✓			
COLOR	Silver or Black	Silver or Black	Silver or Black	Silver or Black	Silver or Black	Silver or Black	Silver	

\*1 Channels are measured separately. \*\*2 Calculated on basis of IHF Dynamic headroom. \*\*3 1 channel driven, IEC.

## FEATURES

DVD/CD PLAYERS	DV-SP1000E	DV-SP503E	DV-SP404E	Hi-Fi RECEIVERS	T X-8522	T X-8222
THX™ CERTIFIED	✓ (Ultra)			POWER OUTPUT STEREO (4 Ω, 1 kHz, DIN)	100 W/Ch	70 W/Ch
DVD-AUDIO PLAYBACK	✓	✓		POWER OUTPUT STEREO (4 Ω, 1 kHz, IEC)	100 W/Ch	70 W/Ch
SUPER AUDIO CD PLAYBACK	✓	✓		DYNAMIC POWER*11 (4 Ω)	120 W/Ch	90 W/Ch
DTS®/DOLBY® DIGITAL/MPEG/DIGITAL AUDIO OUTPUT	✓	✓	✓	WRAT (WIDE RANGE AMPLIFIER TECHNOLOGY)		✓
DIRECT DIGITAL PATH	✓ (Dual)			DISCRETE OUTPUT STAGE CIRCUITRY	✓	✓
VLSC (VECTOR LINEAR SHAPING CIRCUITRY)				HIGH-CURRENT, LOW-IMPEDANCE DRIVE	✓	✓
PROGRESSIVE SCAN (PAL/NTSC)	✓	✓	✓	RDS (RADIO DATA SYSTEM)	✓	✓
HDMI OUTPUT	✓		✓	AUDIO INPUT/OUTPUT TERMINALS	5/3	5/2
OPUS™ FLEXSCALE™ VIDEO SCALING	✓			PHONO INPUT	✓	✓
i.LINK DIGITAL PORT	✓			IR INPUT/OUTPUT	✓	✓
96 kHz-48 kHz SELECTABLE DIGITAL OUTPUT	✓	✓	✓	NUMBER OF PRESETS	40	40
COMPOSITE VIDEO OUTPUT	✓	✓	✓	DIRECT ACCESS TUNING	✓	✓
S-VIDEO OUTPUT	✓	✓		HEADPHONE JACK	✓	✓
COMPONENT VIDEO OUTPUT	2 (RCA/BNC)	✓	✓	SLEEP TIMER	✓	✓
RGB VIDEO OUTPUT		✓	✓	BANANA PLUG-COMPATIBLE SPEAKER POSTS	✓	✓
MP3 PLAYBACK	✓	✓	✓	RI REMOTE CONTROL	✓	✓
WMA PLAYBACK		✓	✓	COLOR	Silver or Black	Silver or Black
DIVX® VIDEO PLAYABLE		✓	✓			
AUDIO DAC	192 kHz/24-Bit	192 kHz/24-Bit	96 kHz/24-Bit			
VIDEO DAC	216 MHz/14-Bit	108 MHz/12-Bit	108 MHz/12-Bit			
VIDEO CIRCUIT ON/OFF CONTROL	✓					
DYNAMIC RANGE CONTROL	✓	✓	✓			
VIDEO BLACK LEVEL CONTROL	✓	✓	✓			
DIGITAL OUTPUTS	2 Optical/2 Coaxial	1 Optical/1 Coaxial	1 Coaxial			
ANALOG AUDIO OUTPUT	✓	✓	✓			
CD-R/RW PLAYBACK CAPABILITY	✓	✓	✓			
DVD-R/RW PLAYBACK CAPABILITY*2	✓	✓	✓			
PASSES PLUGE SIGNALS	✓	✓	✓			
PROGRAMMED MEMORY PLAYBACK	✓	✓	✓			
8-LANGUAGE SOUNDTRACK CAPABILITY	✓	✓	✓			
DIMMABLE DISPLAY	4-Mode	3-Mode				
COLOR	Silver or Black	Silver or Black	Silver or Black			

INTEGRATED AMPLIFIERS	A-9755	A-9555	A-1VL	A-933	A-9211
POWER OUTPUT (8 Ω, 1 kHz, DIN)	150 W/Ch	100 W/Ch	100 W/Ch	80 W/Ch	45 W/Ch
DYNAMIC POWER** (4 Ω)	270 W/Ch	200 W/Ch	240 W/Ch	220 W/Ch	80 W/Ch
VL DIGITAL TECHNOLOGY	✓	✓		✓	
DISCRETE OUTPUT STAGE CIRCUITRY	✓	✓	✓	✓	✓
AUDIO INPUTS/OUTPUTS	6/2	6/2	4/1	5/2	5/2
PRE OUT			✓	✓ (Subwoofer)	
MAIN IN	✓		✓	✓	
PHONO INPUT	✓	✓	✓	✓	✓
DIRECT FUNCTION	✓	✓	✓	✓	✓
SPEAKER A/B DRIVE	✓	✓		✓	✓
HEAVY-DUTY SPEAKER BINDING POSTS	✓	✓	✓	✓	✓
HEADPHONE JACK	✓	✓		✓	✓
RI REMOTE CONTROL	✓	✓		✓	✓
COLOR	Silver or Black	Silver or Black	Silver	Silver	Silver or Black

CD PLAYERS	DX-7555	DX-7333	C-1VL	C-733	DX-C390
VLSC (VECTOR LINEAR SHAPING CIRCUITRY)	✓		✓	✓	✓
DIRECT DIGITAL PATH	✓		✓		✓
SUPER HIGH-PRECISION CLOCK	✓		✓	✓	
MP3 CD PLAYBACK	✓				✓
PEAK SEARCH		✓		✓ (DLA Link)	
DIGITAL OUTPUT On/OFF	✓		✓		
NUMBER OF REPEAT MODES	4	3	4	4	6
RANDOM TRACK MEMORY	25	36	25	25	40
SHUFFLE/RANDOM PLAY	By Remote	By Remote	By Remote	✓	✓
NEXT SELECTION		✓			✓
TIME EDIT		✓			
DIGITAL OUTPUT	1 Optical/1 Coaxial	2 Optical	2 Optical/1 Coaxial	2 Optical	1 Optical/1 Coaxial
ANALOG OUTPUT (FIXED)	✓	✓	✓	✓	✓
HEADPHONE JACK WITH VOLUME CONTROL		✓			
RI REMOTE CONTROL	✓	✓			✓
COLOR	Silver or Black	Silver or Black	Silver	Silver	Silver or Black

CASSETTE DECKS	TA-RW255
NUMBER OF MOTORS	1 + 1
NUMBER OF TAPE HEADS	1 + 2
DOUBLE CASSETTE DECK	✓
HIGH-SPEED DUBBING	✓
DOUBLE AUTO REVERSE	✓
AUTO REVERSE	✓
CONTINUOUS PLAY	✓
REC LEVEL CONTROLS	✓
CD SYNCHRO RECORDING	✓
REPEAT PLAY	✓
MUSIC SEARCH	
DOLBY® B AND C NOISE REDUCTION	✓
DOLBY® HX PRO	
ELECTRONIC COUNTER	✓
FLUORESCENT DISPLAY	✓
RI REMOTE SYSTEM	✓
COLOR	Silver or Black

<sup>\*1</sup>Calculated on basis of IHF Dynamic headroom. <sup>\*2</sup>Discs that have not been properly finalized may only be partially playable or not playable at all.

# SPECIFICATIONS

A/V RECEIVERS	T X-NR5000E	T X-SR803E	T X-SR703E	TX-SR674E/TX-SR604E	T X-SR653E	T X-SR504E	T X-SR304E
<b>AMPLIFIER SECTION</b>							
<b>Power Output</b> *1 (6 Ω, 1 kHz, DIN)							
Front L/R	200 W/Ch	140 W/Ch	130 W/Ch	125 W/Ch; 150 W/Ch*3	125 W/Ch	100 W/Ch; 130 W/Ch*3	90 W/Ch; 100 W/Ch*3
Center	200 W	140 W	130 W	125 W; 150 W*3	125 W	100 W; 130 W*3	90 W; 100 W*3
Surround L/R	200 W/Ch	140 W/Ch	130 W/Ch	125 W/Ch; 150 W/Ch*3	125 W/Ch	100 W/Ch; 130 W/Ch*3	90 W/Ch; 100 W/Ch*3
Surround Back	200 W/Ch (L/R)	140 W/Ch (L/R)	130 W/Ch (L/R)	125 W/Ch (L/R); 150 W/Ch (L/R)*3	125 W/Ch (L/R)	100 W/Ch (L/R); 130 W/Ch (L/R)*3	—
<b>Dynamic Power</b> *2							
4 Ω; 8 Ω (Front)	260 W/Ch; 175 W/Ch	180 W/Ch; 125 W/Ch	170 W/Ch; 115 W/Ch	165 W/Ch; 105 W/Ch	165 W/Ch; 105 W/Ch	140 W/Ch; 95 W/Ch	125 W/Ch; 85 W/Ch
<b>THD (Rated Power)</b>	0.05 % (All channels)	0.08 % (All channels)	0.08 % (All channels)	0.08 % (All channels)	0.08 % (All channels)	0.08 % (All channels)	0.7 % (All channels)
<b>Damping Factor (1 kHz, 8 Ω)</b>	60	60	60	60	60	60	60
<b>Input Sensitivity and Impedance</b>							
PHONO (MM)	2.5 mV, 50 kΩ	2.5 mV, 47 kΩ	2.5 mV, 47 kΩ	—	—	—	—
CD and TAPE Play	200 mV, 50 kΩ	200 mV, 47 kΩ	200 mV, 47 kΩ	200 mV, 47 kΩ	200 mV, 47 kΩ	200 mV, 47 kΩ	200 mV, 47 kΩ
<b>Output Level and Impedance</b>							
TAPE REC	200 mV, 470 Ω	200 mV, 470 Ω	200 mV, 470 Ω	200 mV, 470 Ω	200 mV, 470 Ω	200 mV, 470 Ω	200 mV, 470 Ω
PRE OUT	1.0 V, 470 Ω	1.0 V, 470 Ω	1.0 V, 470 Ω	1.0 V, 470 Ω	1.0 V, 470 Ω	1.0 V, 470 Ω	1.0 V, 470 Ω
<b>Frequency Response</b>							
Audio (CD in Direct Mode)	5 Hz-100 kHz: +1 dB, -3 dB	10 Hz-100 kHz: +1 dB, -3 dB	10 Hz-100 kHz: +1 dB, -3 dB	10 Hz-100 kHz: +1 dB, -3 dB	10 Hz-100 kHz: +1 dB, -3 dB	5 Hz-100 kHz: +1 dB, -3 dB	10 Hz-50 kHz: +1 dB, -3 dB
<b>S/N Ratio</b>							
PHONO (MM)	80 dB (IHF-A, 5 mV input)	80 dB (IHF-A, 5 mV input)	80 dB (IHF-A, 5 mV input)	—	—	—	—
CD/TAPE	95 dB (IHF-A, 0.5 V input)	106 dB (IHF-A, 0.5 V input)	106 dB (IHF-A, 0.5 V input)	106 dB (IHF-A, 0.5 V input)	106 dB (IHF-A, 0.5 V input)	100 dB (IHF-A, 0.5 V input)	100 dB (IHF-A, 0.5 V input)
<b>Phono Overload (1 kHz)</b>	120 mV RMS, 0.5 % THD	70 mV RMS, 0.5 % THD	70 mV RMS, 0.5 % THD	—	—	—	—
<b>Tone Controls</b>							
BASS	± 12 dB at 50 Hz	± 10 dB at 50 Hz	± 10 dB at 50 Hz	± 10 dB at 80 Hz	± 10 dB at 50 Hz	± 10 dB at 80 Hz	± 10 dB at 80 Hz
MID	± 12 dB at 1 kHz	—	—	—	—	—	—
TREBLE	± 12 dB at 20 kHz	± 10 dB at 20 kHz	± 10 dB at 20 kHz	± 10 dB at 20 kHz	± 10 dB at 20 kHz	± 10 dB at 20 kHz	± 10 dB at 20 kHz
<b>TUNER SECTION</b>							
<b>Usable Sensitivity</b>							
FM Mono	11.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)	15.2 dBf, 1.0 μV (75 Ω IHF)
FM Stereo	17.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)	22.2 dBf, 2.0 μV (75 Ω IHF)
AM	30 μV	300 μV/m	300 μV/m	300 μV/m	300 μV/m	300 μV/m	300 μV/m
<b>S/N Ratio</b>							
FM Mono	76 dB (IHF-A)	73 dB (IHF-A)	73 dB (IHF-A)	73 dB (IHF-A)	73 dB (IHF-A)	73 dB (IHF-A)	73 dB (IHF-A)
FM Stereo	70 dB (IHF-A)	67 dB (IHF-A)	67 dB (IHF-A)	67 dB (IHF-A)	67 dB (IHF-A)	67 dB (IHF-A)	67 dB (IHF-A)
AM	40 dB	40 dB	40 dB	40 dB	40 dB	40 dB	40 dB
<b>THD</b>							
FM Mono	0.2 %	0.3 %	0.3 %	0.3 %	0.3 %	0.3 %	0.3 %
FM Stereo	0.3 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %	0.5 %
AM	0.7 %	0.7 %	0.7 %	0.7 %	0.7 %	0.7 %	0.7 %
<b>FM Stereo Separation</b>	45 dB at 1 kHz 30 dB at 100 Hz-10 kHz	40 dB at 1 kHz	40 dB at 1 kHz	40 dB at 1 kHz	40 dB at 1 kHz	40 dB at 1 kHz	40 dB at 1 kHz
<b>GENERAL</b>							
<b>Dimensions (W x H x D)</b>	435 x 220 x 480.5 mm	435 x 173.5 x 430 mm	435 x 173.5 x 430 mm	435 x 174 x 377 mm	435 x 174 x 377 mm	435 x 151 x 377 mm	435 x 150 x 369 mm
<b>Weight</b>	33.0 kg	13.5 kg	13.5 kg	11.0 kg	11.1 kg	10.3 kg	8.4 kg

DVD PLAYERS	DV-SP1000E	DV-SP503E	DV-SP404E	Hi-Fi RECEIVERS	T X-8522	T X-8222
<b>AMPLIFIER SECTION</b>						
<b>Linear Velocity</b>						
Single layer	3.49 m/s	3.49 m/s	3.49 m/s		100 W/Ch	70 W/Ch
Dual layer	3.84 m/s	3.84 m/s	3.84 m/s		100 W/Ch	70 W/Ch
<b>Frequency Range (Digital Audio)</b>						
DVD-Audio	4 Hz-88 kHz (192 kHz)	4 Hz-88 kHz (192 kHz)	—		120 W/Ch; 75 W/Ch	90 W/Ch; 55 W/Ch
DVD Linear Sound	4 Hz-44 kHz (96 kHz), 4 Hz-22 kHz (48 kHz)	4 Hz-44 kHz (96 kHz), 4 Hz-22 kHz (48 kHz)	4 Hz-44 kHz (96 kHz), 4 Hz-22 kHz (48 kHz)		0.08 %	0.08 %
Audio CD	4 Hz-20 kHz (44.1 kHz)	4 Hz-20 kHz (44.1 kHz)	4 Hz-20 kHz (44.1 kHz)		10 Hz-100 kHz (±1 dB, -3 dB)	10 Hz-100 kHz (±1 dB, -3 dB)
<b>S/N Ratio (Digital Audio)</b>	118 dB	106 dB	115 dB			
<b>Audio Dynamic Range (Digital Audio)</b>	100 dB	96 dB	88 dB		100 dB (IHF-A)	100 dB (IHF-A)
<b>THD (Digital Audio) (1 kHz)</b>	0.001 %	0.003 %	0.0065 %			
<b>Wow and Flutter</b>	Below threshold of measurability	Below threshold of measurability	Below threshold of measurability			
<b>Composite Video Output</b>	1.0 V p-p, 75 Ω, negative sync., pin jack x 2, SCART x 1	1.0 V p-p, 75 Ω, negative sync., pin jack x 1, SCART x 1	1.0 V p-p, 75 Ω, negative sync., pin jack x 1, SCART x 1			
<b>S-Video Output</b>	(Y) 1.0 V p-p, 75 Ω, (C) 0.286 V p-p, 75 Ω, negative sync., Mini DIN 4-pin x 2, SCART x 1	(Y) 1.0 V p-p, 75 Ω, (C) 0.286 V p-p, 75 Ω, negative sync., Mini DIN 4-pin x 1, SCART x 1	(Y) 1.0 V p-p, 75 Ω, negative sync., pin jack x 1, (Ps)/(Pn) 0.7 V p-p, 75 Ω, SCART x 1			
<b>Component Video Output</b>	(Y) 1.0 V p-p, 75 Ω, negative sync., pin jack x 2, (Ps)/(Pn) 0.7 V p-p, 75 Ω, SCART x 1	(Y) 1.0 V p-p, 75 Ω, negative sync., pin jack x 1, (Ps)/(Pn) 0.7 V p-p, 75 Ω, SCART x 1	(Y) 1.0 V p-p, 75 Ω, negative sync., pin jack x 1, (Ps)/(Pn) 0.7 V p-p, 75 Ω, SCART x 1			
<b>RGB Video Output</b>	0.7 V p-p, 75 Ω, SCART x 1	0.7 V p-p, 75 Ω, SCART x 1	0.7 V p-p, 75 Ω, SCART x 1			
<b>Audio Output</b>						
Digital (Optical)	-22.5 dBm x 2	-22.5 dBm x 1	—			
Digital (Coaxial)	0.5 V p-p, 75 Ω, pin jack x 2	0.5 V p-p, 75 Ω, pin jack x 1	0.5 V p-p, 75 Ω, pin jack x 1			
Analog Audio	2.0 V RMS, 320 Ω, pin jack (5.1 ch) x 1, pin jack (L/R) x 1, SCART x 1	2.0 V RMS, 470 Ω, pin jack (5.1 ch) x 1, pin jack (L/R) x 1, SCART x 1	2.0 V RMS, 470 Ω, pin jack (L/R) x 1, SCART x 1			
<b>Power Supply</b>	230-240 V AC, 50 Hz	100-240 V AC, 50/60 Hz	220-240 V AC, 50/60 Hz			
<b>Power Consumption</b>	48 W	12 W	7 W			
<b>Dimensions (W x H x D)</b>	435 x 123 x 374 mm	435 x 81 x 309 mm	435 x 61 x 215.5 mm		435 x 150 x 332 mm	435 x 150 x 332 mm
<b>Weight</b>	12.1 kg	3.4 kg	1.9 kg		8.4 kg	7.5 kg
<b>Supplied Accessories</b>	Audio/Video cable x 1, S-Video cable x 1, SCART cable x 1, Remote control (RC-563DV) x 1, HDMI cable x 1, iLINK cable x 1	Audio/Video cable x 1, S-Video cable x 1, SCART cable x 1, Remote control (RC-574DV) x 1	Audio/Video cable x 1, Coaxial cable x 1, Remote control (RC-616DV) x 1			

\*1 Channels are measured separately. \*2 Calculated on basis of IHF Dynamic headroom. \*3 1 channel driven, IEC.



# SPECIFICATIONS

INTEGRATED AMPLIFIERS	A-9755	A-9555	A-1VL	A-933	A-9211
Power Output (8 $\Omega$ , 1 kHz, DIN)	150 W/Ch	100 W/Ch	100 W/Ch	80 W/Ch	45 W/Ch
Dynamic Power** 4 $\Omega$ , 8 $\Omega$	270 W/Ch; 170 W/Ch	200 W/Ch; 120 W/Ch	240 W/Ch; 130 W/Ch	220 W/Ch; 110 W/Ch	80 W/Ch; 55 W/Ch
THD (1 kHz, 1 W)	0.08 %	0.08 %	0.08 %	0.08 %	0.08 % (Rated Power)
Damping Factor (8 $\Omega$ , 1 kHz)	25	25	25	25	60
Sensitivity and Impedance					
Phono MM	2.5 mV (50 k $\Omega$ )	2.5 mV (50 k $\Omega$ )	2.5 mV (50 k $\Omega$ )	2.5 mV (50 k $\Omega$ )	2.5 mV (47 k $\Omega$ )
CD, Tuner, Tape Play	200 mV (50 k $\Omega$ )	200 mV (50 k $\Omega$ )	200 mV (50 k $\Omega$ ) (LINE)	200 mV (50 k $\Omega$ )	150 mV (25 k $\Omega$ )
Rec Out	200 mV (2.2 k $\Omega$ )	200 mV (2.2 k $\Omega$ )	200 mV (2.2 k $\Omega$ )	200 mV (2.2 k $\Omega$ )	150 mV (3 k $\Omega$ )
Tone Controls					
Bass	$\pm$ 10 dB at 100 Hz	$\pm$ 10 dB at 100 Hz	—	$\pm$ 8 dB at 100 Hz	$\pm$ 8 dB at 100 Hz
Treble	$\pm$ 10 dB at 20 kHz	$\pm$ 10 dB at 20 kHz	—	$\pm$ 8 dB at 20 kHz	$\pm$ 8 dB at 10 kHz
Loudness	$\pm$ 10 dB at 50 Hz/+ 2 dB at 10 kHz	$\pm$ 10 dB at 50 Hz/+ 2 dB at 10 kHz	—	—	$\pm$ 8 dB at 100 Hz/+ 2 dB at 10 kHz
Frequency Response	10 Hz-60 kHz/+ 1 dB, - 3 dB (CD)	10 Hz-60 kHz/+ 1 dB, - 3 dB (CD)	10 Hz-60 kHz/+ 1 dB, - 3 dB (CD)	10 Hz-60 kHz/+ 1 dB, - 3 dB (CD)	15 Hz-50 kHz ( $\pm$ 1 dB)
S/N Ratio (IHF-A)					
Phono MM	70 dB	70 dB	70 dB	70 dB	80 dB
CD	100 dB	100 dB	100 dB	100 dB	102 dB
Phono Overload (MM 1 kHz 0.5%)	70 mV	70 mV	130 mV	130 mV	130 mV
Dimensions (W x H x D)	435 x 144 x 431 mm	435 x 148 x 431 mm	435 x 82 x 390 mm	435 x 103 x 328 mm	435 x 120 x 331 mm
Weight	17.6 kg	13.0 kg	11.3 kg	7.5 kg	6.7 kg

CD PLAYERS	DX-7555	DX-7333	C-1VL	C-733	DX-C390
Frequency Response	2 Hz-20 kHz	5 Hz-20 kHz	5 Hz-20 kHz	5 Hz-20 kHz	5 Hz-20 kHz
S/N Ratio	111 dB	90 dB	110 dB	110 dB	98 dB
Dynamic Range	100 dB	96 dB	96 dB	96 dB	96 dB
THD (1 kHz)	0.0027 %	0.005 %	0.002 %	0.003 %	0.005 %
Channel Separation (1 kHz)	—	85 dB	100 dB	—	92 dB
Wow and Flutter	Below threshold of measurability	Below threshold of measurability	Below threshold of measurability	Below threshold of measurability	Below threshold of measurability
Dimensions (W x H x D)	435 x 111 x 405 mm	435 x 91 x 308 mm	435 x 82 x 356 mm	275 x 103 x 304 mm	435 x 131 x 432 mm
Weight	8.0 kg	4.1 kg	6.8 kg	4.5 kg	6.9 kg

TUNERS	T-433	T-4211
Tuning Range		
FM	87.50-108.00 MHz (50 kHz steps)	87.50-108.00 MHz (50 kHz steps)
AM	522-1611 kHz (9 kHz steps)	522-1611 kHz (9 kHz steps)
Usable Sensitivity		
FM Mono	11.2 dBf, 1.0 $\mu$ V 75 $\Omega$ IMF	11.2 dBf, 0.9 $\mu$ V 75 $\Omega$ DIN
FM Stereo	17.2 dBf, 2.0 $\mu$ V 75 $\Omega$ IMF	17.2 dBf, 20.0 $\mu$ V 75 $\Omega$ DIN
AM	30 $\mu$ V	25 $\mu$ V
Capture Ratio (FM)	—	1.5 dB
Image Rejection Ratio	—	80 dB
IF Rejection Ratio (FM)	—	90 dB
S/N Ratio		
FM Mono (IHF)	76 dB	73 dB
FM Stereo (IHF)	70 dB	66 dB
AM	50 dB	40 dB
THD		
FM Mono	0.2 % (Wide)	0.1 % (Wide)
FM Stereo	0.3 % (Wide)	0.2 % (Wide)
AM	0.7 %	0.8 %
Frequency Response (FM)	20 Hz-15 kHz ( $\pm$ 1.5 dB)	30 Hz-15 kHz ( $\pm$ 1.5 dB)
FM Stereo Separation	45 dB at 1 kHz	40 dB at 1 kHz
Dimensions (W x H x D)	275 x 78 x 309 mm	435 x 91 x 305 mm
Weight	3.0 kg	3.6 kg

CASSETTE DECKS	TA-RW255
Wow and Flutter (WRMS)	0.13 %
Frequency Response	
METAL	30 Hz-15 kHz $\pm$ 3 dB
HIGH	30 Hz-14 kHz $\pm$ 3 dB
NORMAL	30 Hz-14 kHz $\pm$ 3 dB
S/N Ratio (METAL, Dolby® NR off)	56 dB
Heads	
Rec & Pb.	Special hard permalloy x 2
Erase	Ferrite x 1
Motors	DC servo motor x 2
Dimensions (W x H x D)	435 x 121 x 303 mm
Weight	4.9 kg

Due to a policy of continuous product improvement, Onkyo reserves the right to change specifications and appearance without notice.

THX, THX Select2, THX Ultra2, THX Ultra and THX Surround are trademarks of THX Ltd. THX may be registered in some jurisdictions. All rights reserved.

THX Surround EX/Dolby Digital Surround EX is a joint development of Dolby Laboratories and THX Ltd.

Dolby, Pro Logic, Digital EX and the double-D symbol are trademarks of Dolby Laboratories.

DTS, DTS-ES Extended Surround, DTS 96/24 and Neo:6 are trademarks of Digital Theater Systems, Inc.

iPod is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

NSV is a trademark of Analog Devices, Inc.

DivX® is a registered trademark of DivX, Inc.

Theater Dimensional, CinemaFILTER, Net-Tune, ExperienCinema, OR-EQ and VLSC are trademarks of Onkyo Corporation.

All other trademarks and registered trademarks are the property of their respective holders.

**ONKYO®**  
IMAGINATIVE SIGHT & SOUND

**Onkyo Corporation**

2-1 Nisshin-cho, Neyagawa-shi, Osaka 572-8540, JAPAN  
Tel: 81-72-831-8136 Fax: 81-72-833-5222 <http://www.onkyo.com/>

**Onkyo Europe Electronics GmbH**

Liegnitzerstrasse 6, 82194 Grobenzell, GERMANY  
Tel: 49-8142-4401-0 Fax: 49-8142-4401-555 <http://www.eu.onkyo.com/>

**Onkyo Europe UK Office**

Suite 1, Gregories Court, Gregories Road, Beaconsfield, Buckinghamshire HP9 1HQ, UNITED KINGDOM  
Tel: 44-1494-681515 Fax: 44-1494-680452 <http://www.onkyo.co.uk/>

**Europe**

**GB**

Catalog No. 06C04  
01-0605